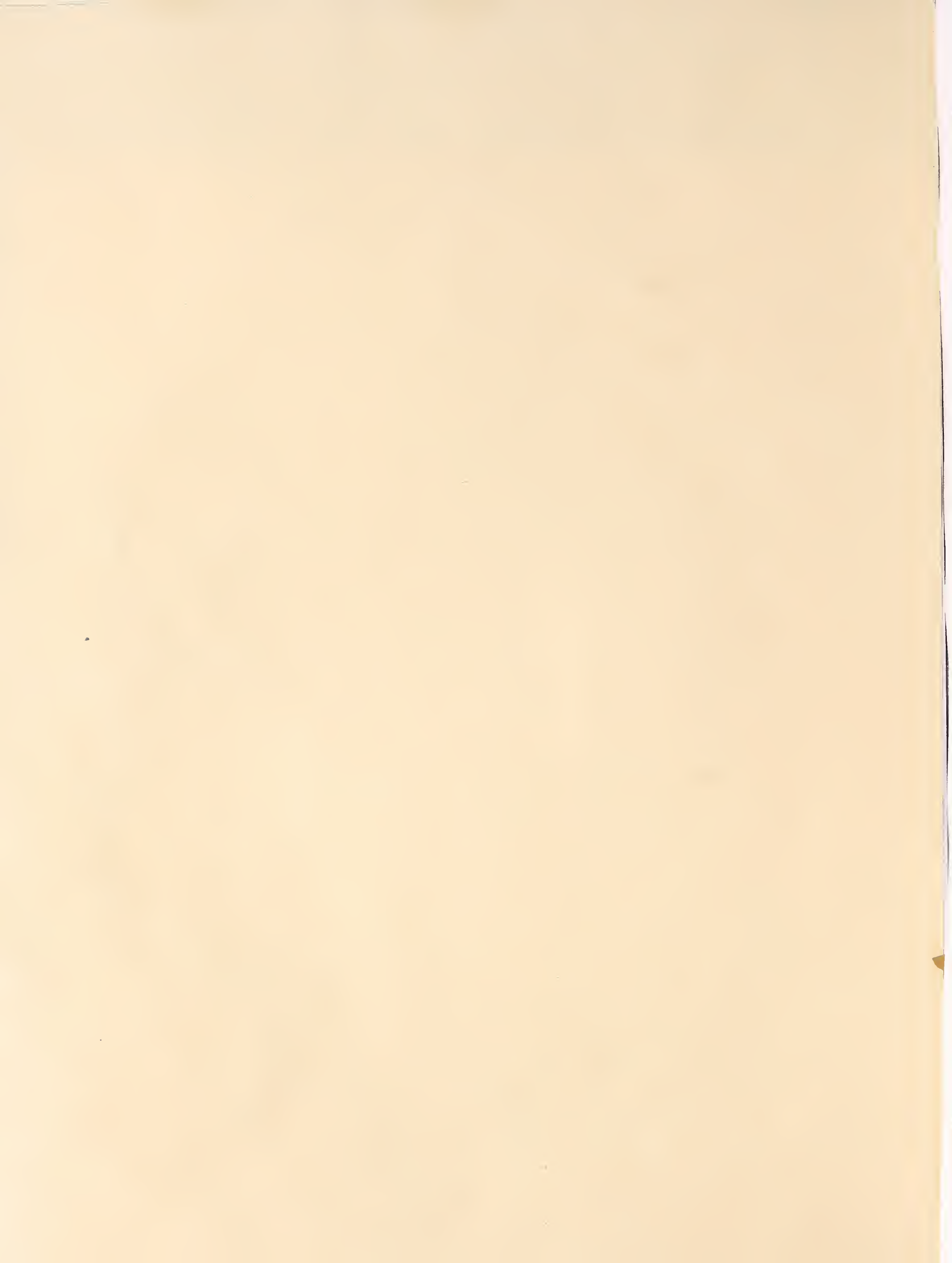
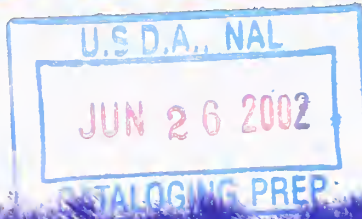


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# Food Buying Guide



## for Child Nutrition Programs



U.S. Department of Agriculture  
Food and Nutrition Service



## BUY AMERICAN REQUIREMENT

Schools and institutions participating in the National School Lunch Program and the School Breakfast Program in the contiguous United States are required by law to use school food service funds, to the maximum extent practicable, to buy domestic commodities or products for meals served under these programs. A “domestic commodity or product” is defined as one that is either produced in the United States or is processed in the United States *substantially* using agricultural commodities that are produced in the United States. The term “substantially” means that over 51 percent of the final product consists of agricultural commodities that were grown domestically. Therefore, when school food service funds are used to acquire foods, schools, and institutions must ensure that the items are in compliance with this requirement.

U.S. Department of Agriculture  
Food and Nutrition Service  
PA-1331

January 1984  
Revised November 2001

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## Section

# 1

Food Buying Guide for Child Nutrition Programs

# Meat/Meat Alternates



- 1-1 Meat and Meat Alternates for the Child Nutrition Programs
- 1-2 Definitions
- 1-3 Yields
- 1-4 Explanation of the Columns
- 1-5 Yield Data Table for Meat/Meat Alternates







# Introduction

It is a big – and very important – job to plan, purchase, prepare, and serve nourishing meals for the U.S. Department of Agriculture's Child Nutrition Programs. Every day, your work helps fight hunger and improve the nutritional health of children in America.

Whether you are serving food to a small number of children or adults or thousands of students, you need to think carefully about each meal.

- *Will the meal meet the appropriate requirements of the various Child Nutrition Programs?*
- *How many servings will you get from a specific quantity of food?*
- *What quantity of the raw product will provide the amount of ready-to-cook food called for in a recipe?*
- *How much food will you need to buy?*

The *Food Buying Guide for Child Nutrition Programs* is designed to help you in two important ways:

1. It will help you or your purchasing agent buy the right amount of food and buy it most economically whether you use one of the food-based or the nutrient standard menu planning approaches.
2. For the food-based menu planning options, it will help you determine the specific contribution each food makes toward the meal pattern requirements. This is necessary to ensure that meals provide needed nourishment and meet program requirements for reimbursement.

In addition, with yield data for more than 1,200 food items, this guide can provide ideas for adding new foods or new forms of familiar foods to your menus. The *Dietary Guidelines for Americans* emphasize that a variety of fruits, vegetables, and grains, especially whole grains, are key elements of a healthful diet. By offering a wide variety of nourishing foods, you are giving children greater opportunity to develop eating habits that will promote life-long good health.



## What is New in This Updated Guide?

As with the previous *Food Buying Guide* last revised in 1984, this new edition will be widely used by school food service professionals. It is also appropriate for use in the Child and Adult Care Food Program as well as the Summer Food Service Program. Meal patterns for each of these Child Nutrition Programs are shown on pages I-7 through I-27.

The *Food Buying Guide for Child Nutrition Programs* was first published in 1947. Since then it has been updated several times to add new foods and to reflect changes in processing technology or packaging that may affect yield.

For example, many schools now purchase ready-to-serve salads and pre-cut vegetables. These were not widely available the last time the guide was revised in 1984.

This new guide *replaces* the 1984 edition. The new guide:

- *is the most comprehensive to date.* It includes over five hundred new food items or new pack sizes, each carefully tested in a food service setting using the equipment and methods that would be used in a typical food service setting.
- *has a new look, with an updated design.* The yield data tables, however, appear in a familiar format so you can continue to use them easily.
- *is packed with helpful information.* For example, a series of variations of practical examples serves as a how-to guide for working with the yield data tables.
- *contains updated meal pattern charts and adds a chart summarizing required menu items for the Nutrient Standard Menu Planning approach.*
- *has the following appendices:*

**Appendix A: Recipe Analysis.** This section has been added as a quick method to see if your USDA modified or locally produced recipes will provide the servings that you need for your planned meal.

**Appendix B: Determining the Number of Servings, for Crediting Purposes, from a Particular Food.** This section shows how to calculate the credit of one portion of a recipe using Column 6 (Additional Information).

**Appendix C: The USDA Child Nutrition (CN) Labeling Program.** This section provides a brief description of the CN Label Program, what types of foods can be CN labeled, and what a CN label looks like. It also contains yield data for food items used primarily by industry.

**Appendix D: Food Purchasing.** Summaries of *First Choice* and *Choice Plus* are included as a resource for purchasing foods.

**Appendix E: Resources.** Other resources related to food service, food preparation, food safety, meal planning, and more. There is also a quick reference guide for various Internet addresses and phone numbers.



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## Yields

Yield information is a valuable planning tool. Use it as a guideline to purchase sufficient food for the meals you will prepare.

Examples of yield information:

- If you plan to include fresh, chopped tomatoes in a green salad, you will need to know how many pounds of whole tomatoes, minus the waste, will yield the desired amount for the recipe.
- If you have received commodity ground beef and you plan to serve 275 portions of meatloaf which will provide 2 ounces of cooked lean meat per portion, you will need to know how many ounces of *raw* ground beef to include in the recipe to yield 275 2-ounce servings of *cooked* lean meat.
- If you plan to serve a marinated black bean salad, and the recipe calls for 5 pounds of drained, canned, black beans, you need to know how many cans of undrained beans will yield 5 pounds of drained beans, or, the number of pounds of dry, uncooked black beans that could be used instead.

The yield information provided in this guide represents *average yields* based on research conducted by USDA. The yield information given for a specific food is meant to be a planning and production tool.

The yield information in this guide is based on careful portioning and weighing. Measuring tools, such as a volume measure filled level to the top and an accurate scale, were used in the research conducted by USDA.

Using these same tools you must measure or weigh portions carefully and ensure that each serving size is appropriate for the age/grade group you are serving.

If your food service operation is consistently getting a higher or lower yield from a product than the yield specified by the *Food Buying Guide*, you may want to research and document the yield or number of portions of a specified size that the product provides. Prior to obtaining any in-house yield data you must find out if your State agency will allow the use of in-house yield data. If your State agency allows the use of in-house yield data: 1) determine what your State agency procedures are to determine the in-house yields; and 2) maintain documentation required by the State agency.

Specific and verifiable procedures must be followed to document yield.

For example, suppose the yield listed in the *Food Buying Guide* for a #10 can of diced pears is consistently lower than the yield you are getting with the brand of diced pears you are currently purchasing. After checking with your State agency,



you find out that you can collect in-house yield data, that the agency requires determining yields from at least six samples, and that the State agency will need to review and approve the data before it can be used.

Based on procedures set by the State agency, your program will need to carefully portion (using the appropriate scoop/disher or measuring spoon which is filled level to the top of the measure) at least six (6) #10 cans, carefully counting and documenting the number of specified portions. When the portioning and counting are completed, you will total the number of servings from each of the 6 cans and then divide the total by 6 to get the average number of portions per can. To get a better estimate of yield, at least two people should do the portioning and counting of 6 samples independently. In this example, the State agency reviewed and accepted the in-house yield data and required documentation to be maintained of how the yields for the diced pears were established.

Many factors affect yield, including:

- the quality and condition of the food you buy;
- storage conditions and handling;
- the equipment used in preparation;
- cooking method and time;
- the form in which you serve the food — for example, whether the potatoes you are serving are mashed, fried, or baked; and
- the serving utensils and portion control methods used.

## Meal Patterns

For the National School Lunch Program (NSLP) and the School Breakfast Program (SBP), schools may plan meals by:

1. using one of the food-based menu planning approaches,
2. using Nutrient Standard or Assisted Nutrient Standard Menu Planning, or
3. adopting an alternate menu planning approach developed by a State agency or by the school food authority with State agency approval. Please see program regulations (7 CFR Parts 210 and 220), *A Menu Planner for Healthy School Meals* Publication number FNS-303, or contact your State agency for additional information about the various menu planning approaches.

The Child and Adult Care Food Program (CACFP) and the Summer Food Service Program (SFSP) follow meal patterns for planning menus. However, if the CACFP or SFSP is operated by a school using one of the Nutrient Standard Menu Planning approaches, that method may also be used for these programs with State agency approval. Please see program regulations (7 CFR Parts 225 and 226), *Building Blocks for Fun and Healthy Meals – A Menu Planner for CACFP* Publication number FNS-305 and *Sponsor Meal Preparation Handbook for the Summer Food Service Program for Children* Publication Number FNS-207 or contact your State agency for additional information about menu planning for the CACFP and the SFSP.



### Charts 1A & 1B: National School Lunch Program (NSLP)

Chart 1A shows the traditional food-based meal pattern for NSLP. Chart 1B shows the Enhanced Food-Based Meal Pattern for the NSLP.

USDA recommends, but does not require, that portions be adjusted by age/grade group to better meet the food and nutritional needs of children according to their ages. If portions are not adjusted, the oldest age group served must receive at least the minimum amount for that age group, even though more food will be served than recommended for the lower age groups.

For example, the amounts of food listed under Groups I-IV on the traditional meal pattern for NSLP indicate minimum requirements for the age and grade groups specified. If you do not adjust portions, you must offer the Group IV portions to all students. Group V lists recommended amounts for older students who may need the larger portions.

Also when using the Traditional Food-Based Menu Planning approach, it is important to ensure that meals provide sufficient calories. The Traditional Meal Pattern was designed to serve as the framework for the meal. Schools are expected to add other foods and condiments to provide taste, enhance appeal, and increase calories and the nutritional value of the meal.

### **Charts 2A & 2B: School Breakfast Program (SBP)**

Chart 2A shows the Traditional Food-Based Meal Pattern for the SBP. Chart 2B shows the enhanced food-based meal pattern for the SBP.

### **Chart 3: Afterschool Snacks Served Under the National School Lunch Program (NSLP)**

Schools may serve reimbursable supplemental snacks to children in an eligible afterschool snack program. Chart 3 provides the minimum requirements for afterschool snacks.

### **Chart 4: Child and Adult Care Food Program (CACFP)**

For children and adults participating in the CACFP:

Chart 4A shows the minimum meal pattern requirements for breakfast;

Chart 4B shows the minimum meal pattern requirements for lunch;

Chart 4C shows the minimum meal pattern requirements for supper; and

Chart 4D shows the minimum meal pattern requirements for snacks.

### **Chart 5: Summer Food Service Program (SFSP)**

Chart 5 shows the breakfast, lunch or supper, and snack patterns for the SFSP.

### **Chart 6: Minimum Required Menu Items for Nutrient Standard Menu Planning**

Chart 6 is a summary of the menu items required when using the Nutrient Standard or Assisted Nutrient Standard Menu Planning approaches.





# Chart 1A

## SCHOOL LUNCH PATTERNS

### TRADITIONAL FOOD-BASED MENU PLANNING – Meal Pattern

FOOD COMPONENTS AND FOOD ITEMS	MINIMUM QUANTITIES				RECOMMENDED QUANTITIES
	GROUP I AGES 1 and 2 PRESCHOOL	GROUP II AGES 3 and 4 PRESCHOOL	GROUP III AGES 5-8 GRADES K-3	GROUP IV AGE 9 AND OLDER GRADES 4-12	GROUP V AGE 12 AND OLDER GRADES 7-12
<b>Milk, fluid</b> (as a beverage)	6 fl oz (3/4 cup)	6 fl oz (3/4 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)
<b>Meat or Meat Alternate</b> <sup>1, 2, 3, 4, 5</sup> (quantity of the edible portion as served):					
Lean meat, poultry, or fish	1 oz	1-1/2 oz	1-1/2 oz	2 oz	3 oz
Alternate protein products <sup>3</sup>	1 oz	1-1/2 oz	1-1/2 oz	2 oz	3 oz
Cheese	1 oz	1-1/2 oz	1-1/2 oz	2 oz	3 oz
Egg (large)	1/2 large egg	3/4 large egg	3/4 large egg	1 large egg	1-1/2 large eggs
Cooked dry beans or peas <sup>4</sup>	1/4 cup	3/8 cup	3/8 cup	1/2 cup	3/4 cup
Peanut butter or other nut or seed butters	2 Tbsp	3 Tbsp	3 Tbsp	4 Tbsp	6 Tbsp
Yogurt, plain or flavored, unsweetened or sweetened - commercially prepared	4 oz or 1/2 cup	6 oz or 3/4 cup	6 oz or 3/4 cup	8 oz or 1 cup	12 oz or 1-1/2 cups
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above: Peanuts, soynuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 oz of nuts/seeds=1 oz of cooked lean meat, poultry, or fish) <sup>5</sup>	1/2 oz = 50% <sup>5</sup>	3/4 oz = 50% <sup>5</sup>	3/4 oz = 50%	1 oz = 50%	1-1/2 oz = 50%
<b>Vegetable or Fruit</b> <sup>4, 6</sup> Two or more servings of different vegetables, fruits, or both	1/2 cup	1/2 cup	1/2 cup	3/4 cup	3/4 cup
<b>Grains/Breads</b> <sup>7</sup> (Servings per week): Must be enriched or whole-grain or made from enriched or whole-grain flour or meal that may include bran and/or germ. A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or 1/2 cup of cooked rice, macaroni, noodles, other pasta products, or cereal grains.	5 per week <sup>8</sup> -minimum of 1/2 per day	8 per week <sup>8</sup> -minimum of 1 per day	8 per week <sup>8</sup> -minimum of 1 per day	8 per week <sup>8</sup> -minimum of 1 per day	10 per week <sup>8</sup> -minimum of 1 per day

<sup>1</sup> Must be served in the main dish or the main dish plus only one other menu item.

<sup>2</sup> Enriched macaroni with fortified protein may be used to meet part of the meat or meat alternate requirement.

<sup>3</sup> Alternate protein products must meet the requirements in Appendix A of 7 CFR Part 210.

<sup>4</sup> Cooked dry beans or peas may be used as a meat alternate or as a vegetable, but not as both components in the same meal.

<sup>5</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

<sup>6</sup> No more than one-half of the total requirement may be met with full-strength fruit or vegetable juice.

<sup>7</sup> Enriched macaroni with fortified protein may be used as a meat alternate or as a grains/breads item, but not as both components in the same meal.

<sup>8</sup> For the purposes of this chart, a week equals 5 school days.



# Chart 1B

## SCHOOL LUNCH PATTERNS

### ENHANCED FOOD-BASED MENU PLANNING — Meal Pattern

FOOD COMPONENTS AND FOOD ITEMS	MINIMUM REQUIREMENTS				OPTION FOR
	AGES 1 and 2	PRESCHOOL	GRADES K-6	GRADES 7-12	
<b>Milk</b> , fluid (as a beverage)	6 fl oz (3/4 cup)	6 fl oz (3/4 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)	GRADES K-3 8 fl oz (1 cup)
<b>Meat or Meat Alternate</b> <sup>1,2,3,4,5</sup> (quantity of the edible portion as served):					
Lean meat, poultry, or fish	1 oz	1-1/2 oz	2 oz	2 oz	1-1/2 oz
Alternate protein products <sup>3</sup>	1 oz	1-1/2 oz	2 oz	2 oz	1-1/2 oz
Cheese	1 oz	1-1/2 oz	2 oz	2 oz	1-1/2 oz
Egg (large)	1/2 large egg	3/4 large egg	1 large egg	1 large egg	3/4 large egg
Cooked dry beans or peas <sup>4</sup>	1/4 cup	3/8 cup	1/2 cup	1/2 cup	3/8 cup
Peanut butter or other nut or seed butters	2 Tbsp	3 Tbsp	4 Tbsp	4 Tbsp	3 Tbsp
Yogurt, plain or flavored, unsweetened, or sweetened – commercially prepared	4 oz or 1/2 cup	6 oz or 3/4 cup	8 oz or 1 cup	8 oz or 1 cup	6 oz or 3/4 cup
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above: Peanuts, soybeans, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 oz of nuts/seeds = 1 oz of cooked lean meat, poultry, or fish). <sup>5</sup>	1/2 oz = 50% <sup>5</sup>	3/4 oz = 50% <sup>5</sup>	1 oz = 50%	1 oz = 50%	3/4 oz = 50%
<b>Vegetable or Fruit</b> <sup>4,6</sup> Two or more servings of different vegetables, fruits, or both	1/2 cup	1/2 cup	3/4 cup plus an extra 1/2 cup over a week	1 cup	3/4 cup
<b>Grains/Breads</b> <sup>7</sup> (Servings per week): Must be enriched or whole-grain or made from enriched or whole-grain flour or meal that may include bran and/or germ. A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or 1/2 cup of cooked rice, macaroni, noodles, other pasta products, or cereal grains.	5 per week <sup>8</sup> —minimum of 1/2 per day	8 per week <sup>8</sup> —minimum of 1 per day	12 per week <sup>8</sup> —minimum of 1 per day <sup>9</sup>	15 per week <sup>8</sup> —minimum of 1 per day <sup>9</sup>	10 per week <sup>8</sup> —minimum of 1 per day <sup>9</sup>

<sup>1</sup> Must be served in the main dish or the main dish plus only one other menu item.

<sup>2</sup> Enriched macaroni with fortified protein may be used to meet part of the meat or meat alternate requirement.

<sup>3</sup> Alternate protein products must meet requirements in Appendix A of 7 CFR Part 210.

<sup>4</sup> Cooked dry beans or peas may be used as a meat alternate or as a vegetable, but not as both components in the same meal.

<sup>5</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

<sup>6</sup> No more than one-half of the total requirement may be met with full-strength fruit or vegetable juice.

<sup>7</sup> Enriched macaroni with fortified protein may be used as a meat alternate or as a grains/breads item, but not as both components in the same meal.

<sup>8</sup> For the purposes of this chart, a week equals 5 school days.

<sup>9</sup> Up to one grains/breads serving per day may be a grain-based dessert.





# Chart 2A

## SCHOOL BREAKFAST PATTERNS

### TRADITIONAL FOOD-BASED MENU PLANNING ALTERNATIVE — Meal Pattern

FOOD COMPONENTS AND FOOD ITEMS	MINIMUM REQUIREMENTS		
	AGES 1 and 2	PRESCHOOL	GRADES K-12
<b>Milk</b> (Fluid) (As a beverage, on cereal, or both)	4 fl oz (1/2 cup)	6 fl oz (3/4 cup)	8 fl oz (1 cup)
<b>Juice/Fruit/Vegetable</b> Fruit and/or vegetable; or full-strength fruit juice or vegetable juice	1/4 cup	1/2 cup	1/2 cup
<b>SELECT ONE SERVING FROM EACH OF THE FOLLOWING COMPONENTS; TWO FROM ONE COMPONENT; OR AN EQUIVALENT COMBINATION<sup>1</sup>:</b>			
<b>Grains/Breads<sup>2</sup></b>			
Whole-grain or enriched bread	1/2 slice	1/2 slice	1 slice
Whole-grain or enriched biscuit, roll, muffin, etc.	1/2 serving	1/2 serving	1 serving
Whole-grain, enriched, or fortified cereal	1/4 cup or 1/3 oz	1/3 cup or 1/2 oz	3/4 cup or 1 oz
<b>Meat or Meat Alternate<sup>3, 4, 5</sup></b>			
Lean meat/poultry or fish	1/2 oz	1/2 oz	1 oz
Alternate protein products <sup>3</sup>	1/2 oz	1/2 oz	1 oz
Cheese	1/2 oz	1/2 oz	1 oz
Egg (large)	1/2 large egg	1/2 large egg	1/2 large egg
Peanut butter or other nut or seed butters	1 Tbsp	1 Tbsp	2 Tbsp
Cooked dry beans and peas	2 Tbsp	2 Tbsp	4 Tbsp
Nuts and/or seeds (as listed in program guidance) <sup>4, 5</sup>	1/2 oz <sup>5</sup>	1/2 oz <sup>5</sup>	1 oz
Yogurt, plain or flavored, unsweetened, or sweetened – commercially prepared	2 oz or 1/4 cup	2 oz or 1/4 cup	4 oz or 1/2 cup

<sup>1</sup> Minimum servings for meat/meat alternate = 0.25 ounce and for grains/breads = 1/4 serving.

<sup>2</sup> Grains/Breads must be enriched or whole-grain or made from enriched or whole-grain flour or meal that may include bran and/or germ.

<sup>3</sup> Alternate protein products must meet requirements in Appendix A 7 CFR Part 220.

<sup>4</sup> No more than 1 ounce of nuts and/or seeds may be served in any one breakfast.

<sup>5</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.





# Chart 2B

## SCHOOL BREAKFAST PATTERNS

### ENHANCED FOOD-BASED MENU PLANNING ALTERNATIVE — Meal Pattern

FOOD COMPONENTS AND FOOD ITEMS	MINIMUM REQUIREMENTS			
	REQUIRED FOR			OPTION FOR GRADES 7-12
	AGES 1 and 2	PRESCHOOL	GRADES K-12	
Milk (Fluid) (As a beverage, on cereal, or both)	4 fl oz (1/2 cup)	6 fl oz (3/4 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)
Juice/Fruit/Vegetable	1/4 cup	1/2 cup	1/2 cup	1/2 cup
SELECT ONE SERVING FROM EACH OF THE FOLLOWING COMPONENTS; OR TWO FROM ONE COMPONENT; OR AN EQUIVALENT COMBINATION <sup>1</sup>				
Grains/Breads <sup>2</sup>				
Whole-grain or enriched bread	1/2 slice	1/2 slice	1 slice	1 slice
Whole-grain or enriched biscuit, roll, muffin, etc.	1/2 serving	1/2 serving	1 serving	1 serving
Whole-grain, enriched, or fortified cereal	1/4 cup or 1/3 oz	1/3 cup or 1/2 oz	3/4 cup or 1 oz	3/4 cup or 1 oz - Plus an additional serving of one of the Grains/Breads above.
Meat or Meat Alternate <sup>3, 4, 5</sup>				
Lean meat/poultry or fish	1/2 oz	1/2 oz	1 oz	1 oz
Alternate protein products <sup>3</sup>	1/2 oz	1/2 oz	1 oz	1 oz
Cheese	1/2 oz	1/2 oz	1 oz	1 oz
Egg (large)	1/2 large egg	1/2 large egg	1/2 large egg	1/2 large egg
Peanut butter or other nut or seed butters	1 Tbsp	1 Tbsp	2 Tbsp	2 Tbsp
Cooked dry beans and peas	2 Tbsp	2 Tbsp	4 Tbsp	4 Tbsp
Nuts and/or seeds (as listed in program guidance) <sup>4, 5</sup>	1/2 oz <sup>5</sup>	1/2 oz <sup>5</sup>	1 oz	1 oz
Yogurt, plain or flavored, unsweetened, or sweetened – commercially prepared	2 oz or 1/4 cup	2 oz or 1/4 cup	4 oz or 1/2 cup	4 oz or 1/2 cup

<sup>1</sup> Minimum servings for meat/meat alternate = 0.25 ounce and for grains/breads = 1/4 serving.

<sup>2</sup> Grains/Breads must be enriched or whole-grain or made from enriched or whole-grain flour or meal that may include bran and/or germ.

<sup>3</sup> Alternate protein products must meet requirements in Appendix A of 7 CFR Part 220.

<sup>4</sup> No more than 1 ounce of nuts and/or seeds may be served in any one breakfast.

<sup>5</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.



# Chart 3 NATIONAL SCHOOL LUNCH PROGRAM MEAL PATTERN

## AFTERSCHOOL SNACKS

### SELECT TWO OF THE FOUR COMPONENTS FOR A REIMBURSABLE SNACK

FOOD COMPONENTS AND FOOD ITEMS <sup>1</sup>	CHILDREN AGES 1 and 2	CHILDREN AGES 3-5	CHILDREN AGES 6-12 <sup>1</sup>
<b>Milk</b>			
Fluid milk	4 fl oz (1/2 cup)	4 fl oz (1/2 cup)	8 fl oz (1 cup)
<b>Vegetable or Fruit<sup>2</sup></b>			
Juice <sup>2</sup> , fruit, and/or vegetable	1/2 cup	1/2 cup	3/4 cup
<b>Grains/Breads<sup>3, 4</sup></b>			
Bread <i>or</i>	1/2 slice	1/2 slice	1 slice
Cornbread or biscuit or roll or muffin <i>or</i>	1/2 serving	1/2 serving	1 serving
Cold dry cereal <sup>4</sup> <i>or</i>	1/4 cup or 1/3 oz <sup>4</sup>	1/3 cup or 1/2 oz <sup>4</sup>	3/4 cup or 1 oz <sup>4</sup>
Cooked cereal grains <i>or</i>	1/4 cup	1/4 cup	1/2 cup
Cooked pasta or noodles	1/4 cup	1/4 cup	1/2 cup
<b>Meat/Meat Alternate<sup>5, 6, 7</sup></b>			
Lean meat or poultry or fish <sup>5</sup> <i>or</i>	1/2 oz	1/2 oz	1 oz
Alternate protein products <sup>6</sup> <i>or</i>	1/2 oz	1/2 oz	1 oz
Cheese <i>or</i>	1/2 oz	1/2 oz	1 oz
Egg (large) <i>or</i>	1/2 large egg	1/2 large egg	1/2 large egg
Cooked dry beans or peas <i>or</i>	1/8 cup	1/8 cup	1/4 cup
Peanut or other nut or seed butters <i>or</i>	1 Tbsp	1 Tbsp	2 Tbsp
Nuts and/or seeds <sup>7</sup> <i>or</i>	1/2 oz <sup>7</sup>	1/2 oz <sup>7</sup>	1 oz
Yogurt <sup>8</sup>	2 oz or 1/4 cup	2 oz or 1/4 cup	4 oz or 1/2 cup

<sup>1</sup> Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.

<sup>2</sup> Serve two or more kinds of vegetable(s) and/or fruit(s). Full-strength vegetable or fruit juice may be counted to meet not more than one-half of this requirement.

<sup>3</sup> Grains/Breads must be whole-grain or enriched, or made from whole-grain or enriched flour or meal that may include bran and/or germ. Cereal must be whole-grain, enriched, or fortified.

<sup>4</sup> Either volume (cup) or weight (oz), whichever is less.

<sup>5</sup> A serving consists of the edible portion of cooked lean meat or poultry or fish.

<sup>6</sup> Alternate protein products must meet requirements in Appendix A of 7 CFR Part 210.

<sup>7</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

<sup>8</sup> Yogurt may be plain or flavored, unsweetened, or sweetened – commercially prepared.





**Chart 4A****CHILD AND ADULT CARE  
FOOD PROGRAM MEAL PATTERNS****BREAKFAST****SERVE ALL THREE COMPONENTS FOR A REIMBURSABLE BREAKFAST**

<b>FOOD COMPONENTS AND FOOD ITEMS</b>	<b>CHILDREN AGES 1 and 2</b>	<b>CHILDREN AGES 3-5</b>	<b>CHILDREN AGES 6-12<sup>1</sup></b>	<b>ADULTS</b>
<b>Milk</b>				
Fluid milk	4 fl oz (1/2 cup)	6 fl oz (3/4 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)
<b>Vegetable or Fruit</b>				
Full strength juice <sup>2</sup> , fruit, and/or vegetable	1/4 cup	1/2 cup	1/2 cup	1/2 cup
<b>Grains/Breads<sup>3</sup></b>				
Bread <i>or</i>	1/2 slice	1/2 slice	1 slice	2 slices (servings)
Cornbread or biscuit or roll or muffin <i>or</i>	1/2 serving	1/2 serving	1 serving	2 servings
Cold dry cereal <sup>4</sup> <i>or</i>	1/4 cup or 1/3 oz <sup>4</sup>	1/3 cup or 1/2 oz <sup>4</sup>	3/4 cup or 1 oz <sup>4</sup>	1-1/2 cup or 2 oz <sup>4</sup>
Cooked cereal grains <i>or</i>	1/4 cup	1/4 cup	1/2 cup	1 cup
Cooked pasta or noodles	1/4 cup	1/4 cup	1/2 cup	1 cup

<sup>1</sup> Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.

<sup>2</sup> Full strength vegetable and/or fruit juice or an equivalent quantity of any combination of vegetable(s) or fruit(s), and juice.

<sup>3</sup> Breads and grains must be enriched or whole-grain or made from enriched or whole-grain flour or meal that may include bran and/or germ. Cereal must be whole-grain or enriched or fortified.

<sup>4</sup> Either volume (cup) or weight (oz), whichever is less.





# Chart 4B

# CHILD AND ADULT CARE FOOD PROGRAM MEAL PATTERNS

## LUNCH

### SERVE ALL FOUR COMPONENTS FOR A REIMBURSABLE LUNCH

FOOD COMPONENTS AND FOOD ITEMS <sup>1</sup>	CHILDREN AGES 1 and 2	CHILDREN AGES 3-5	CHILDREN AGES 6-12 <sup>1</sup>	ADULTS
<b>Milk</b>				
Fluid milk	4 fl oz (1/2 cup)	6 fl oz (3/4 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)
<b>Vegetable or Fruit<sup>2</sup></b> Two or more servings of vegetables and/or fruits				
Juice <sup>2</sup> , fruit and/or vegetable	1/4 cup total	1/2 cup total	3/4 cup total	1 cup total
<b>Grains/Breads<sup>3</sup></b>				
Bread <i>or</i>	1/2 slice	1/2 slice	1 slice	2 slices (servings)
Cornbread or biscuit or roll or muffin <i>or</i>	1/2 serving	1/2 serving	1 serving	2 servings
Cooked cereal grains <i>or</i>	1/4 cup	1/4 cup	1/2 cup	1 cup
Cooked pasta or noodles	1/4 cup	1/4 cup	1/2 cup	1 cup
<b>Meat/Meat Alternate<sup>4, 5, 6, 7, 8</sup></b>				
Lean meat or poultry or fish <sup>4</sup> <i>or</i>	1 oz	1-1/2 oz	2 oz	2 oz
Alternate protein products <sup>5</sup>	1 oz	1-1/2 oz	2 oz	2 oz
Cheese <i>or</i>	1 oz	1-1/2 oz	2 oz	2 oz
Egg (large) <i>or</i>	1/2 large egg	3/4 large egg	1 large egg	1 large egg
Cooked dry beans or peas <i>or</i>	1/4 cup	3/8 cup	1/2 cup	1/2 cup
Peanut or other nut or seed butters <i>or</i>	2 Tbsp	3 Tbsp	4 Tbsp	4 Tbsp
Nuts and/or seeds <sup>6, 7</sup> <i>or</i>	1/2 oz = 50% <sup>7</sup>	3/4 oz = 50% <sup>7</sup>	1 oz = 50%	1 oz = 50%
Yogurt <sup>8</sup>	4 oz or 1/2 cup	6 oz or 3/4 cup	8 oz or 1 cup	8 oz or 1 cup

<sup>1</sup> Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.

<sup>2</sup> Serve two or more kinds of vegetable(s) and/or fruit(s). Full-strength vegetable or fruit juice may be counted to meet not more than one-half of this requirement.

<sup>3</sup> Grains/breads must be whole grain or enriched, made from whole-grain or enriched flour or meal which may include bran and/or germ. Cereal must be whole-grain or enriched or fortified.

<sup>4</sup> A serving consists of the edible portion of cooked lean meat or poultry or fish.

<sup>5</sup> Alternate protein products must meet requirements in Appendix A of 7 CFR Part 226.

<sup>6</sup> Nuts and seeds may meet only one-half of the total meat/meat alternate serving and must be combined with another meat/meat alternate to fulfill the lunch requirement.

<sup>7</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

<sup>8</sup> Yogurt may be plain or flavored, unsweetened, or sweetened – commercially prepared.



# Chart 4C

# CHILD AND ADULT CARE FOOD PROGRAM MEAL PATTERNS

## SUPPER

### SERVE ALL FOUR COMPONENTS FOR A REIMBURSABLE SUPPER

FOOD COMPONENTS AND FOOD ITEMS <sup>1</sup>	CHILDREN AGES 1 and 2	CHILDREN AGES 3-5	CHILDREN AGES 6-12 <sup>1</sup>	ADULTS
<b>Milk</b>				
Fluid milk	4 fl oz (1/2 cup)	6 fl oz (3/4 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)
<b>Vegetable or Fruit<sup>2</sup></b> Two or more servings of different vegetables and or fruits				
Juice <sup>2</sup> , fruit and/or vegetable	1/4 cup total	1/2 cup total	3/4 cup total	1 cup total
<b>Grains/Breads<sup>3</sup></b>				
Bread <i>or</i>	1/2 slice	1/2 slice	1 slice	2 slices (servings)
Cornbread or biscuit or roll or muffin <i>or</i>	1/2 serving	1/2 serving	1 serving	2 servings
Cooked cereal grains <i>or</i>	1/4 cup	1/4 cup	1/2 cup	1 cup
Cooked pasta or noodles	1/4 cup	1/4 cup	1/2 cup	1 cup
<b>Meat/Meat Alternate<sup>4, 5, 6, 7, 8</sup></b>				
Lean meat or poultry or fish <sup>4</sup> <i>or</i>	1 oz	1-1/2 oz	2 oz	2 oz
Alternate protein products <sup>5</sup> <i>or</i>	1 oz	1-1/2 oz	2 oz	2 oz
Cheese <i>or</i>	1 oz	1-1/2 oz	2 oz	2 oz
Egg (large) <i>or</i>	1/2 large egg	3/4 large egg	1 large egg	1 large egg
Cooked dry beans or peas <i>or</i>	1/4 cup	3/8 cup	1/2 cup	1/2 cup
Peanut or other nut or seed butters <i>or</i>	2 Tbsp	3 Tbsp	4 Tbsp	4 Tbsp
Nuts and/or seeds <sup>6, 7</sup> <i>or</i>	1/2 oz = 50% <sup>7</sup>	3/4 oz = 50% <sup>7</sup>	1 oz = 50%	1 oz = 50%
Yogurt <sup>8</sup>	4 oz or 1/2 cup	6 oz or 3/4 cup	8 oz or 1 cup	8 oz or 1 cup

<sup>1</sup> Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.

<sup>2</sup> Serve two or more kinds of vegetable(s) and/or fruit(s). Full-strength vegetable or fruit juice may be counted to meet not more than one-half of this requirement.

<sup>3</sup> Grains/Breads must be whole-grain or enriched, or made from whole-grain or enriched flour or meal that may include bran and/or germ. Cereal must be whole-grain or enriched or fortified.

<sup>4</sup> A serving consists of the edible portion of cooked lean meat or poultry or fish.

<sup>5</sup> Alternate protein products must meet requirements in Appendix A of 7 CFR Part 226.

<sup>6</sup> Nuts and seeds may meet only one-half of the total meat/meat alternate serving and must be combined with another meat/meat alternate to fulfill the supper requirement.

<sup>7</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

<sup>8</sup> Yogurt may be plain or flavored, unsweetened, or sweetened – commercially prepared.





# Chart 4D

# CHILD AND ADULT CARE FOOD PROGRAM MEAL PATTERNS

## SNACKS

### SELECT TWO OF THE FOUR COMPONENTS FOR A REIMBURSABLE SNACK

FOOD COMPONENTS AND FOOD ITEMS <sup>1</sup>	CHILDREN AGES 1 and 2	CHILDREN AGES 3-5	CHILDREN AGES 6-12 <sup>1</sup>	ADULTS
<b>Milk</b>				
Fluid milk	4 fl oz (1/2 cup)	4 fl oz (1/2 cup)	8 fl oz (1 cup)	8 fl oz (1 cup)
<b>Vegetable or Fruit<sup>2</sup></b>				
Full strength juice <sup>2</sup> , fruit and/or vegetable	1/2 cup	1/2 cup	3/4 cup	1/2 cup
<b>Grains/Breads<sup>3, 4</sup></b>				
Bread <i>or</i>	1/2 slice	1/2 slice	1 slice	1 slice
Cornbread or biscuit or roll or muffin <i>or</i>	1/2 serving	1/2 serving	1 serving	1 serving
Cold dry cereal <sup>4</sup> <i>or</i>	1/4 cup or 1/3 oz <sup>4</sup>	1/3 cup or 1/2 oz <sup>4</sup>	3/4 cup or 1 oz <sup>4</sup>	3/4 cup or 1 oz <sup>4</sup>
Cooked cereal grains <i>or</i>	1/4 cup	1/4 cup	1/2 cup	1/2 cup
Cooked pasta or noodles	1/4 cup	1/4 cup	1/2 cup	1/2 cup
<b>Meat/Meat Alternate<sup>5, 6, 7, 8</sup></b>				
Lean meat or poultry or fish <sup>5</sup> <i>or</i>	1/2 oz	1/2 oz	1 oz	1 oz
Alternate protein products <sup>6</sup> <i>or</i>	1/2 oz	1/2 oz	1 oz	1 oz
Cheese <i>or</i>	1/2 oz	1/2 oz	1 oz	1 oz
Egg (large) <i>or</i>	1/2 large egg	1/2 large egg	1/2 large egg	1/2 large egg
Cooked dry beans or peas <i>or</i>	1/8 cup	1/8 cup	1/4 cup	1/4 cup
Peanut or other nut or seed butters <i>or</i>	1 Tbsp	1 Tbsp	2 Tbsp	2 Tbsp
Nuts and/or seeds <sup>7</sup> <i>or</i>	1/2 oz <sup>7</sup>	1/2 oz <sup>7</sup>	1 oz	1 oz
Yogurt <sup>8</sup>	2 oz or 1/4 cup	2 oz or 1/4 cup	4 oz or 1/2 cup	4 oz or 1/2 cup

<sup>1</sup> Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.

<sup>2</sup> Full strength vegetable and/or fruit juice or an equivalent quantity of any combination of vegetable(s), fruit(s), and juice.

<sup>3</sup> Grains/Breads must be enriched or whole-grain or made from whole-grain or enriched flour or meal that may include bran and/or germ. Cereal must be whole-grain or enriched or fortified.

<sup>4</sup> Either volume (cup) or weight (oz), whichever is less.

<sup>5</sup> A serving consists of the edible portion of cooked lean meat or poultry or fish.

<sup>6</sup> Alternate protein products must meet requirements in Appendix A of 7 CFR Part 226.

<sup>7</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

<sup>8</sup> Yogurt may be plain or flavored, unsweetened, or sweetened – commercially prepared.





# Chart 5 SUMMER FOOD SERVICE PROGRAM MEAL PATTERN FOR CHILDREN

## SELECT THE APPROPRIATE COMPONENTS FOR A REIMBURSABLE MEAL

FOOD COMPONENTS AND FOOD ITEMS	BREAKFAST SERVE ALL THREE	LUNCH OR SUPPER SERVE ALL FOUR	SNACKS SERVE TWO OF THE FOUR
<b>Milk<sup>1, 2</sup></b> Fluid milk	8 fl oz (1 cup) <sup>1</sup>	8 fl oz (1 cup) <sup>2</sup>	8 fl oz (1 cup) <sup>1</sup>
<b>Vegetable or Fruit<sup>3, 4, 5</sup></b> Juice, fruit and/or vegetable	1/2 cup <sup>3</sup> (juice must be full-strength)	3/4 cup <sup>4</sup> total	3/4 cup <sup>3, 5</sup> (juice must be full-strength)
<b>Grains/Breads<sup>6, 7</sup></b> Bread or Cornbread or biscuit or roll or Muffin or Cold dry cereal <sup>7</sup> or Hot cooked cereal or Cooked pasta or noodles or grains	1 slice 1 serving 3/4 cup or 1 oz <sup>7</sup> 1/2 cup 1/2 cup	1 slice 1 serving N/A 1/2 cup 1/2 cup	1 slice 1 serving 3/4 cup or 1 oz <sup>7</sup> 1/2 cup 1/2 cup
<b>Meat/Meat Alternate<sup>8, 9, 10, 11, 12</sup></b> Lean meat or poultry or fish <sup>8</sup> or Alternate protein products <sup>9</sup> or Cheese or Egg (large) or Cooked dry beans or peas or Peanut or other nut butters or Nuts and/or seeds <sup>11</sup> or Yogurt <sup>12</sup>	<b>optional</b> 1 oz 1 oz 1 oz 1/2 large egg 1/4 cup 2 Tbsp --- 4 oz (1/2 cup)	2 oz 2 oz 2 oz 1 large egg 1/2 cup 4 Tbsp 1 oz = 50% <sup>10, 11</sup> 8 oz (1 cup)	1 oz 1 oz 1 oz 1/2 large egg 1/4 cup 2 Tbsp 1 oz <sup>11</sup> 4 oz (1/2 cup)

<sup>1</sup> For Breakfast or Snack, fluid milk shall be served as a beverage, or on cereal, or use part of it for each purpose.

<sup>2</sup> For Lunch or Supper, fluid milk shall be used as a beverage.

<sup>3</sup> Fruit or vegetable juice must be full-strength for Breakfast and Snacks.

<sup>4</sup> For Lunch or Supper, serve two or more kinds of vegetable(s) and/or fruit(s). Full-strength vegetable or fruit juice may be counted to meet not more than one-half of this requirement.

<sup>5</sup> Juice may not be served to fulfill the supplement requirement, when milk is served as the only other component.

<sup>6</sup> Grains/Breads must be enriched or whole-grain, or made from whole-grain or enriched flour or meal that may include bran and/or germ. Cereal must be whole-grain or enriched or fortified.

<sup>7</sup> Either volume (cup) or weight (oz), whichever is less.

<sup>8</sup> A serving consists of the edible portion of cooked lean meat or poultry or fish.

<sup>9</sup> Alternate protein products must meet requirements in Appendix A of 7 CFR Part 225.

<sup>10</sup> Nuts and seeds may meet no more than one-half of the total meat/meat alternate to fulfill the lunch or supper requirement.

<sup>11</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

<sup>12</sup> Yogurt may be plain or flavored, unsweetened, or sweetened - commercially prepared.



## Nutrient Standard Menu Planning (NSMP) Requirements

Menus planned under the NSMP approach must meet two requirements:

- 1) When averaged over the school week, school lunches and school breakfasts must meet the specific age- or grade-based nutrient standards as defined in 7 CFR Parts 210.10 and 220.8; and
- 2) At a minimum, planned menus must contain the menu items as summarized in Chart 6 below. Additional menu items may need to be added in order to meet nutrient standards and/or to increase variety.

**Chart 6**      **MINIMUM REQUIRED MENU ITEMS FOR  
NUTRIENT STANDARD MENU PLANNING**

Menu Items	MINIMUM AMOUNTS	
	Lunch	Breakfast
Entree	1 serving	none
Other menu item(s) (side dishes)	1 serving	2 servings
Fluid milk	1 serving	1 serving



## To Help You Use This Guide

This section contains a variety of information and reference tools, starting with a list of common abbreviations and symbols used.

Also included are tips on portion control and tables showing:

- common can and jar sizes;
- how to substitute one can size for another;
- how to convert customary units (such as pounds and ounces) to their metric equivalents; and
- how to convert parts of a unit (such as 1/2 gallon or 1/4 pound) to the correct decimal equivalent.

**Table 1**  
**List of Abbreviations and Symbols Used**

<b>AP</b> ..... as purchased	<b>vol</b> ..... volume
<b>EP</b> ..... edible portion	<b>tsp</b> ..... teaspoon
<b>incl</b> ..... including	<b>Tbsp</b> ..... tablespoon
<b>excl</b> ..... excluding	<b>fl oz</b> ..... fluid ounce
<b>cyl</b> ..... cylinder	<b>c</b> ..... cup
<b>pkg</b> ..... package	<b>pt</b> ..... pint
<b>No.</b> ..... number	<b>qt</b> ..... quart
<b>approx.</b> ..... approximately	<b>gal</b> ..... gallon
<b>wt</b> ..... weight	<b>mL</b> ..... milliliter
<b>oz</b> ..... ounce	<b>L</b> ..... liter
<b>lb</b> ..... pound	<b>#</b> ..... number
<b>g</b> ..... gram	<b>vac</b> ..... vacuum
<b>kg</b> ..... kilogram	

## Common Can and Jar Sizes

The following tables provide helpful information on 10 common can and jar sizes. *Table 2* lists the average total net weight or fluid measure per can and the average volume per can. *Table 3* gives information on number of cans per case and principal products.

It is important to know:

- Can sizes are industry terms and do not necessarily appear on the label.
- The net weight on can or jar labels differs according to the density of the contents. For example, a No. 10 can of sauerkraut weighs 6 lb 3 oz (2.81 kg), while a No. 10 can of cranberry sauce weighs 7 lb 5 oz (3.32 kg).
- No. 10 cans of the same food item may have different net weights depending on the manufacturer.
- Canned meats, fish, and shellfish are known and sold by the weight (not volume) of the contents in the can.
- The number 303 can for vegetables is no longer used by American canners. The conversion information for the 303 can remains in the following tables since some of these canned products may still be in storage. Be aware that the yield data tables have been revised; the 303 can yield data have been removed and replaced with the 300 can yield data.



**Table 2**  
**Common Can and Jar Sizes**  
*Average Net Weight or Fluid Measure and Average Volume Per Can*

Can Size	Average Net Weight or Fluid Measure per Can		Average Volume per Can	
	<i>Customary</i>	<i>Metric</i>	<i>Cups</i>	<i>Liters</i>
No. 10	6 lb (96 oz) to 7 lb 5 oz (117 oz)	2.72 kg to 3.31 kg	12 cups to 13-2/3 cups	2.84 L to 3.24 L
No. 3 Cyl	51 oz (3 lb 3 oz) or 46 fl oz (1 qt 14 fl oz)	1.44 kg or 1.36 L	5-3/4 cups	1.36 L
No. 2-1/2	26 oz (1 lb 10 oz) to 30 oz (1 lb 14 oz)	737 g to 850 g	3-1/2 cups	0.83 L
No. 2 Cyl	24 fl oz	709 mL	3 cups	0.71 L
No. 2	20 oz (1 lb 4 oz) or 18 fl oz (1 pt 2 fl oz)	567 g or 532 mL	2-1/2 cups	0.59 L
No. 303 (old)	16 oz (1 lb) to 17 oz (1 lb 1 oz)	453 g to 481 g	2 cups	0.47 L
No. 300 (new)	14 oz to 16 oz (1 lb)	396 g to 453 g	1-3/4 cups	0.41 L
No. 2 (Vacuum)	12 oz	340 g	1-1/2 cups	0.36 L
No. 1 (Picnic)	10-1/2 oz to 12 oz	297 g to 340 g	1-1/4 cups	0.30 L
8 oz	8 oz	226 g	1 cup	0.24 L



**Table 3**  
**Common Can and Jar Sizes**  
*Cans Per Case and Principal Products*

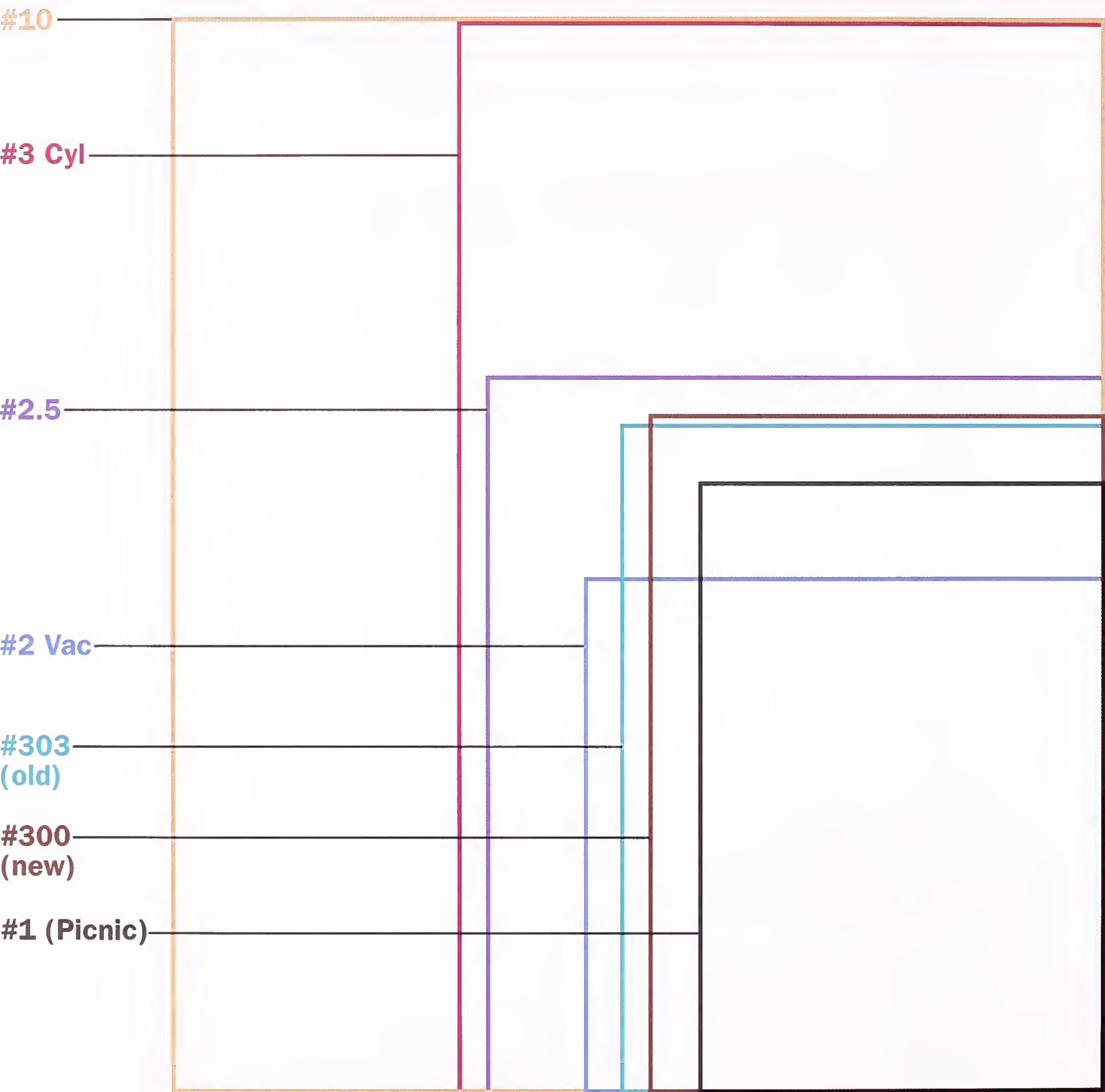
Can Size	Cans per Case	Principal Products
No. 10	6 cans per case	<b>Institutional size:</b> Fruits, vegetables, some other foods
No. 3 Cyl	12 cans per case	<b>Institutional size:</b> Condensed soups, some vegetables, meat and poultry products, fruit and vegetable juices
No. 2-1/2	24 cans per case	<b>Family size:</b> Fruits, some vegetables
No. 2 Cyl	24 cans per case	<b>Family size:</b> Juices, soups
No. 2	24 cans per case	<b>Family size:</b> Juices, ready-to-serve soups, some fruits
No. 303 (old)	24 or 36 cans per case	<b>Small cans:</b> Fruits and vegetables, some meat and poultry products, ready-to-serve soups
No. 300 (new)	24 cans per case	<b>Small cans:</b> Some fruits and meat products
No. 2 (Vacuum)	24 cans per case	<b>Small cans:</b> Principally vacuum-packed corn
No. 1 (Picnic)	48 cans per case	<b>Small cans:</b> Condensed soups, some fruits, vegetables, meat, fish
8 oz per case	48 or 72 cans	<b>Small cans:</b> Ready-to-serve soups, fruits, vegetables

**Figure 1**  
**Can Size Template**

*Lie a can on its side directly on this actual size template to help you determine what size can it is.*

**Dimensional Food Can Standards**

**Height**



**Figure 2**  
**Can Size Template**

*Position the top side of a can directly on this actual size template to help you determine what size can it is.*

---

**Dimensional Food Can Standards**

---

## Diameter

**#1 (Picnic)**

**#300  
(new)**

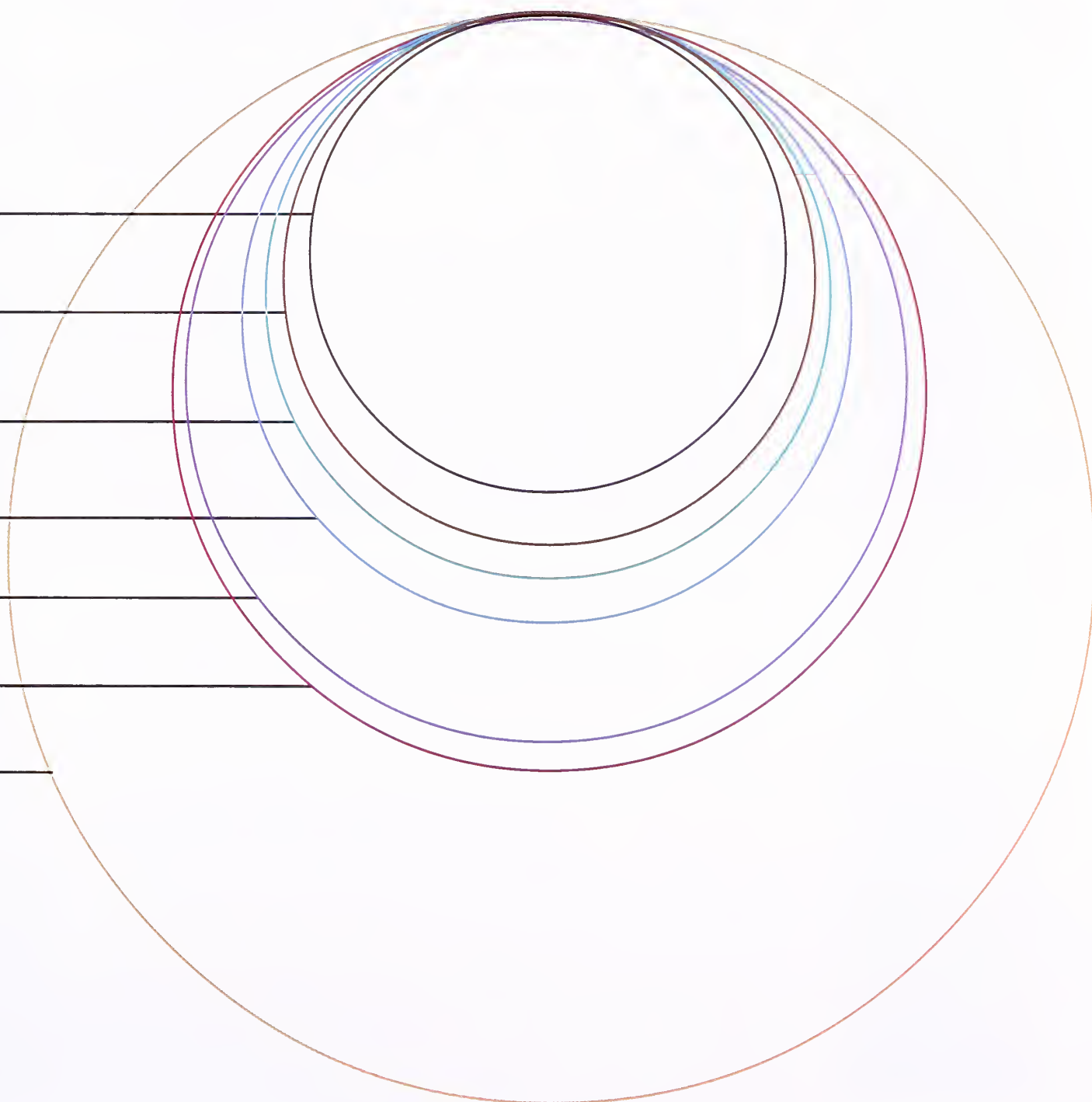
**#303  
(old)**

**#2**

**#2.5**

**#3 cyl**

**#10**



## Substituting Can Sizes

As you plan menus and make purchasing decisions, you may sometimes want to use a different size can than the ones listed in this guide.

For example, you might have several No. 2 cans of wax beans in inventory you would like to use. *The Food Buying Guide* lists yield information for this product in No. 2-1/2 cans. On page 2-2, you will see that for 100 servings of heated, drained vegetable, you would need 7.8 No. 2-1/2 cans. How will you know how many No. 2 cans to use for 100 servings?

**Table 4 makes substitutions easy. To use this table:**

- Read across the top to find the column that begins with the can size you have. In the example above, you would see that No. 2 is listed in the fourth column.
- Read down the rows listed under “Can Size In Yield Table.” Find the can size for which you want to make the substitution. In the example above, you would read down the third row to find No. 2-1/2.
- Find where the column and the row intersect and note the figure listed. This tells you how many cans you will need to make the substitution. In the example above, you would note that “1.5” is shown where the fourth column and third row intersect.

**For the example above, this tells you:**

In place of each No. 2-1/2 can, you would need to use 1.5 No. 2 cans.

To answer how many No. 2 cans you would need for 100 servings of wax beans:

1) Multiply the number of 2-1/2 cans needed for 100 servings (7.8) times the number of size 2 cans needed to substitute for one 2-1/2 can (1.5).

*Calculation: 7.8 multiplied by 1.5 equals 11.7*

Therefore, if you need 7.8 No. 2-1/2 cans for 100 servings, you would need 11.7 No. 2 cans for the same 100 servings. Keep in mind that you will have to open 12 cans.



**Table 4**  
**A Guide for Substituting Cans**

	CAN SIZE YOU HAVE					
CAN SIZE IN YIELD TABLE	No. 10	No. 3Cyl	No. 2-1/2	No. 2	No. 303	No. 300
No. 10	1.0	2.1	3.7	5.3	6.5	7.4
No. 3 Cyl	0.5	1.0	1.8	2.6	3.1	3.3
No. 2-1/2	0.3	0.6	1.0	1.5	1.8	2.0
No. 2	0.2	0.4	0.7	1.0	1.3	1.5
No. 303 (old)	0.2	0.3	0.6	0.8	1.0	1.2
No. 300 (new)	0.1	0.3	0.5	0.7	0.9	1.0

## Decimal Equivalents

The following four tables will help you convert units of weight and measurement to their decimal equivalents or convert decimal equivalent to measurable or weighable units.

*Table 5* lists ounces and their decimal equivalents in pounds.

*Table 6* lists common fractions and their number equivalent in decimal form. Use this table as a quick reference when you need to convert a commonly used fraction into numbers.

*Table 7* lists numbers in decimal form and converts and rounds them down to the correct fraction of a cup for crediting vegetables/fruits servings.

*Table 8* shows decimal equivalents for fractions of pounds, cups, and gallons. These can be listed in the same table because each breaks down into 16 parts. For example, just as there are 16 ounces in a pound, there are also 16 tablespoons in a cup, and 16 cups in a gallon.

**Table 5**  
**Decimal Weight Equivalents**

Ounces	Pounds	Ounces	Pounds
1 oz =	0.06 lb	16 oz =	1.00 lb
2 oz =	0.12 lb	32 oz =	2.00 lb
3 oz =	0.19 lb	35 oz =	2.19 lb
4 oz =	0.25 lb	48 oz =	3.00 lb
5 oz =	0.31 lb	64 oz =	4.00 lb
6 oz =	0.38 lb	71 oz =	4.44 lb
7 oz =	0.44 lb	80 oz =	5.00 lb
8 oz =	0.50 lb	96 oz =	6.00 lb
9 oz =	0.56 lb	106 oz =	6.63 lb
10 oz =	0.62 lb	112 oz =	7.00 lb
11 oz =	0.69 lb	128 oz =	8.00 lb
12 oz =	0.75 lb	141 oz =	8.82 lb
13 oz =	0.81 lb	144 oz =	9.00 lb
14 oz =	0.88 lb	160 oz =	10.00 lb
15 oz =	0.94 lb		

**Table 6**  
**Decimal Equivalents of Commonly Used Fractions**

$1/8 = 0.125$	$1/3 = 0.333$	$2/3 = 0.666$
$1/4 = 0.250$	$1/2 = 0.500$	$3/4 = 0.750$
$3/8 = 0.375$	$5/8 = 0.625$	$7/8 = 0.875$

Use *Table 7* to assist in rounding the decimal equivalent of a vegetables/fruits serving to the correct creditable volume towards the vegetables/fruits meal pattern component. The decimal equivalent is not fluid ounces but the fraction of a cup as determined by crediting calculations.

For example, a recipe analysis calculation determined that one portion of a recipe provides 0.68 cups of vegetables/fruits. Based on *Table 7*, you can count  $5/8$  cup vegetable towards the vegetables/fruits meal pattern component since 0.68 is between 0.625 and 0.749. Keep in mind that two or more servings of *different* vegetables and/or fruits must be served to meet the vegetable/fruit requirement at lunch and/or supper.

**Table 7**  
**Converting Decimal Equivalents to the Nearest Portion of a Cup for Fruits and Vegetables**

If decimal equivalent is:	the recipe contributes:
0.125 - .249	$1/8$ cup
.250 - .374	$1/4$ cup
.375 - .499	$3/8$ cup
.500 - .624	$1/2$ cup
.625 - .749	$5/8$ cup
.750 - .874	$3/4$ cup
.875 - .999	$7/8$ cup
1.000 - 1.124	1 cup

---

## Using Table 8 to Calculate Fractions of a Unit

### EXAMPLES:

**Cups to Gallons:** You want to convert 10-1/2 cups to the equal volume amount of gallons in decimal form.

1. Find the whole number unit in the left-hand column.

For this example, the whole number is "10". Find "10" in the Number of Units column on the left of the table.

2. Follow this line across the table towards the right to the column headed "+1/2 unit." Read the decimal number.

Going right from the number "10" and stopping under the heading "+1/2 unit," the decimal number reads 0.66.

**ANSWER: 10-1/2 cups is equal to 0.66 gallons.**

**Gallons to Cups:** Your recipe calls for 0.53 gallons of an ingredient. You want to know the equal volume amount in cups.

1. Find .53 in the body of the table under the "fraction or part of the unit" columns.

For this example, .53 can be found under the "+1/2 unit" 9 rows down.

2. Follow this line across the table towards the left. Read the number in the "Number of Units" column.

The Number of Units corresponding to .53 (which is under the "+1/2 unit" column) reads "8."

3. Combine the whole unit number from the "Number of Units" column with the fraction listed in the "Fraction or part of the unit" column corresponding to the .53 number.

*The whole number = 8*  
*The fraction of a number = +1/2*  
*Combining these numbers = 8-1/2*

**ANSWER: 0.53 gallons is equal to 8-1/2 cups.**



**Table 8**  
**Decimal Equivalents for Fractions of a Unit**

*Whole units are on the left. The fraction or part of the unit is to the right.*

<b>If the whole units are:</b>	<b>the decimal equivalents are part of:</b>
ounces .....	1 pound
tablespoons .....	1 cup
cups .....	1 gallon

FRACTION OR PART OF THE UNIT						
NUMBER OF UNITS		+ 1/4 of unit	+ 1/3 of unit	+ 1/2 of unit	+ 2/3 of unit	+ 3/4 of unit
0	-----	0.02	0.02	0.03	0.04	0.05
1	0.06	.08	.08	.09	.10	.11
2	.12	.14	.15	.16	.17	.17
3	.19	.20	.21	.22	.23	.23
4	.25	.27	.27	.28	.29	.30
5	.31	.33	.33	.34	.35	.36
6	.38	.39	.40	.41	.42	.42
7	.44	.45	.46	.47	.48	.48
8	.50	.52	.52	.53	.54	.55
9	.56	.58	.58	.59	.60	.61
10	.62	.64	.65	.66	.67	.67
11	.69	.70	.71	.72	.73	.73
12	.75	.77	.77	.78	.79	.80
13	.81	.83	.83	.84	.85	.86
14	.88	.89	.90	.91	.92	.92
15	.94	.95	.96	.97	.98	.98
16	1.00	1.02	1.02	1.03	1.04	1.05

## Metric Equivalents

Metric quantities are increasingly used for food processing, packaging, and specification writing. The following four tables will help you become familiar with the relationship between metric units (Tables 9, 10 and 11) and customary units (Table 12).

*Table 9* is a guide to metric conversions showing, for example, how to change ounces to grams by multiplying by 28.35. *Table 10* shows metric equivalents by weight. *Table 11* shows metric equivalents by volume. *Table 12* shows customary units for volume.

Note: For Tables 11 and 12, keep in mind that volume is measured in fluid ounces and liters.

**Table 9**  
**A Guide to Metric Conversions**

<i>To change</i>	<i>To</i>	<i>Multiply by</i>
ounces (oz)	grams (g)	28.35
pounds (lb)	grams (g)	453.6
pounds (lb)	kilograms (kg)	0.4536
teaspoons (tsp)	milliliters (mL)	4.93
tablespoons (Tbsp)	milliliters (mL)	14.79
fluid ounces (fl oz)	milliliters (mL)	29.57
cups (c)	liters (L)	0.236
pints (pt)	liters (L)	0.473
quarts (qt)	liters (L)	0.946
gallons (gal)	liters (L)	3.785

**Table 10**  
**Metric Equivalents by Weight**

<i>Customary Unit (avoirdupois)</i>	<i>Metric Unit</i>
<i>Ounces (oz)</i>	<i>Grams (g)</i>
1 oz .....	28.35 g
4 oz .....	113.4 g
8 oz .....	226.8 g
16 oz .....	453.6g
<i>Pounds (lb)</i>	<i>Grams (g)</i>
1 lb .....	453.6 g
2 lb .....	907.2 g
<i>Pounds (lb)</i>	<i>Kilograms (kg)</i>
2.2 lb .....	1 kg (1000 g)



**Table 11**  
**Metric Equivalents by Volume**

<i>Customary Unit (fluid ounces)</i>	<i>Metric Unit</i>
1 cup (8 fl oz) .....	236.59 milliliters (mL)
1 quart (32 fl oz) .....	946.36 milliliters (mL)
1.5 quarts (48 fl oz) .....	1.42 liter (L)
33.818 fl oz .....	1.0 liter (L)

**Table 12**  
**A Guide to Volume Equivalents for Liquids**

1 tablespoon	= 3 teaspoons	= 0.5 fluid ounces
1/8 cup	= 2 tablespoons	= 1 fluid ounce
1/4 cup	= 4 tablespoons	= 2 fluid ounces
1/3 cup	= 5-1/3 tablespoons	= 2.65 fluid ounces
3/8 cup	= 6 tablespoons	= 3 fluid ounces
1/2 cup	= 8 tablespoons	= 4 fluid ounces
5/8 cup	= 10 tablespoons	= 5 fluid ounces
2/3 cup	= 10-2/3 tablespoons	= 5.3 fluid ounces
3/4 cup	= 12 tablespoons	= 6 fluid ounces
7/8 cup	= 14 tablespoons	= 7 fluid ounces
1 cup	= 16 tablespoons	= 8 fluid ounces
1/2 pint	= 1 cup	= 8 fluid ounces
1 pint	= 2 cups	= 16 fluid ounces
1 quart	= 2 pints	= 32 fluid ounces
1 gallon	= 4 quarts	= 128 fluid ounces
1 peck	= 8 quarts (dry)	
1 bushel	= 4 pecks	



## Measures for Portion Control

Careful portioning is an important part of any food service operation. It helps to ensure that each serving will be the appropriate size and that a recipe will produce the expected yield (see page I-3 for definitions of yield).

Scoops or dishers, ladles, and measuring-serving spoons of standard sizes are fairly dependable measures for portioning by volume and serving food quickly. Below is portion information on each. Remember, whichever measuring utensil you choose, it must be filled level with the top to maintain equal portioning for each measure.

### Scoops, Dishers, or Dippers

Scoops (sometimes called dishers or dippers) are useful for portioning specific volumes of foods such as drop cookies, muffins, meat patties, and some vegetables and salads.

The number on the scoop tells you how many scoopfuls make 1 quart (946 milliliters). The higher the number the smaller the scoop. For example, a Number 24 scoop is smaller than a Number 6 scoop, because it takes more scoopfuls to make 1 quart.



Table 13 (below) shows the approximate measure of each scoop or disher in cups, tablespoons, and teaspoons. (Remember, the same volume of different foods will not all weigh the same. If you want to measure by weight, use a scale.)

**Table 13**  
**Sizes and Capacities of Scoops (Dishers)**

Number On Scoop (Disher)	Level Measure
6	2/3 cup
8	1/2 cup
10	3/8 cup
12	1/3 cup
16	1/4 cup
20	3-1/3 tablespoons
24	2-2/3 tablespoons
30	2 tablespoons
40	1-2/3 tablespoons
50	3-3/4 teaspoons
60	3-1/4 teaspoons
70	2-3/4 teaspoons
100	2 teaspoons

## Ladles

*Table 14* shows the approximate measure for the six ladle sizes most frequently used in serving school lunches.

Ladles are useful for serving soups, stews, creamed dishes, sauces, gravies, and other similar liquid products.

The higher the number on a ladle, the larger its size. For example, a ladle marked “2 ounce” is twice as large as a ladle marked “1 ounce.”

Ladles are not labeled “fluid ounce,” although this would be more accurate since they measure volume, not weight.

**Table 14**  
**Sizes and Capacities of Ladles**

Number On Ladle	Approximate Measure
1 ounce	1/8 cup
2 ounce	1/4 cup
4 ounce	1/2 cup
6 ounce	3/4 cup
8 ounce	1 cup
12 ounce	1-1/2 cups

## Measuring-Serving Spoons

Measuring-serving spoons are volume-standardized serving spoons identified for a specific volume measure. They are similar to a ladle, scoop, disher, or dipper in that they can be used to measure specific volumes of food but they are shaped like a serving spoon (solid or perforated.)

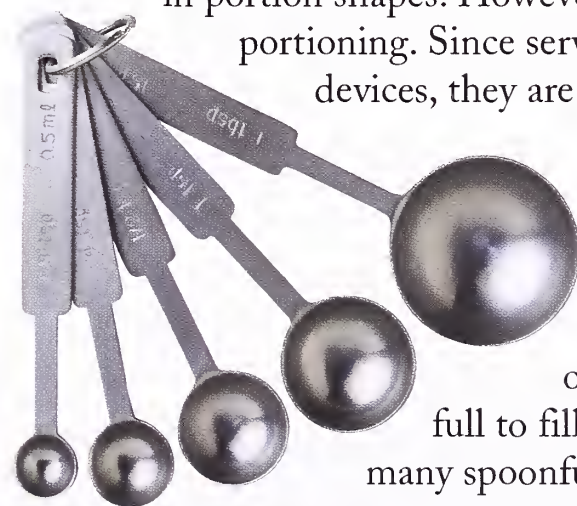
As with ladles, they are labeled in ounces but not in fluid ounces which would be more accurate since they measure volume, not weight.

**Table 15**  
**Sizes and Capacities of Measuring-Serving Spoons**

Size of Measuring/ Serving Spoon	Approximate Measure
2 oz	1/4 cup
3 oz	3/8 cup
4 oz	1/2 cup
6 oz	3/4 cup
8 oz	1 cup

## Serving spoons

Serving spoons (solid or perforated) may be used instead of scoops for variation in portion shapes. However, it is more difficult to ensure correct portioning. Since serving spoons are not standardized measuring devices, they are not identified and labeled by number.



When using serving spoons, some extra steps are needed to ensure accurate portioning.

Before using a particular serving spoon for portioning, 1) measure or weigh the quantity of food the spoon holds, and 2) determine how full to fill the serving spoon. Then determine how many spoonfuls will be needed for the required serving size.



## Explanation of Food Buying Guide

On the following pages, you will find answers to the following questions, along with some helpful examples.

- How are the foods in this guide listed and grouped?
- What information do the yield data tables provide?
- How can you use the yield data?

### How are the foods in this guide listed and grouped?

The foods in this guide are listed as individual food items. The foods are arranged alphabetically *within* the appropriate food component from the Child Nutrition Meal Patterns. (These patterns are shown in Charts 1 through 6, pages I-7 through I-27.)

For example, if you were looking for information:

- on beef, you would look in *Section 1: Meats and Meat Alternates*;
- on sweet potatoes, in *Section 2: Vegetables and Fruits*;
- on cereals, in *Section 3: Grains/Breads*;
- on milk, in *Section 4: Milk*;
- on hominy, in *Section 5: Other Foods*.

The foods in *Section 5: Other Foods* do not meet the requirement for any component in the meal patterns. They are foods frequently used as additional foods, condiments or seasonings to increase menu appeal, improve acceptability, and provide additional calories and nutrients to help meet children's nutritional needs. The Other Foods section is provided to assist you in purchasing these types of foods.

If you are not sure under which component a food is listed, the complete index at the end of the guide will direct you to the correct page.

### What information do the yield tables provide?

Using a six-column format, the yield data tables provide the following information:

1. Food As Purchased, AP
2. Purchase Unit
3. Servings per Purchase Unit, EP (Edible Portion)
4. Serving Size per Meal Contribution
5. Purchase Units for 100 Servings
6. Additional Information



## FOOD BUYING GUIDE

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
-------------------------	-----------------	----------------------------------	--------------------------------------	-----------------------------------	--------------------------

### Additional details on each of these columns include:

**Column 1 - Food As Purchased, AP:** tells you the name of the food item and the form(s) in which it is purchased. Individual foods are arranged in alphabetical order by type of food. For instance, ham is listed under *Pork, mild cured*. Within each type, foods are listed according to the forms in which they appear in the market – fresh, canned, frozen, or dehydrated.

Where appropriate, Column 1 also includes a detailed description of the form in which items are purchased. For example, one listing for canned, boned chicken, reads: *Chicken, canned: Boned poultry with broth*. The listing for fresh beets reads: *Beets, fresh: Without tops*.

**Column 2 - Purchase Unit:** tells you the basic unit of purchase for the food. For most foods, the guide lists “Pound” as the purchase unit.

For some processed foods, the guide lists an institutional pack and, in many cases, a smaller pack, along with the net weight of the pack’s contents. For example, the listing for canned asparagus cuts and tips, includes information on two can sizes: No. 10 can (103 oz) and No. 300 can (14-1/2 oz).

You can use data on the 1-pound unit of purchase, together with Table 2 Common Can and Jar Sizes, to determine the number of servings for any size purchase unit available in the market. (Table 2 is on page I-30.)

**Column 3 - Servings per Purchase Unit, EP (Edible Portion):** shows the number of servings of a given size (found in Column 4) from each purchase unit (found in Column 2). It is based on average yields from good quality foods prepared in ways that result in a minimum of waste.

For example, the purchase unit for fresh cranberries is listed as 1 pound. Column 3 indicates 15.6 servings per purchase unit if 1/4 cup raw, chopped fruit (Column 4) is served. This tells us we can expect to obtain 15.6 1/4-cup servings from 1 pound of good quality fresh cranberries.

Where applicable, numbers have been carried to one decimal, such as 15.6 in this example, because fractions become significant when figuring large numbers of servings. (It is for this reason, and not because the figures represent this degree of accuracy, that they have been reported to the nearest 0.01 of a serving for less than 10 servings per purchase unit.)

Numbers reported in this column have sometimes been rounded *down* in order to help ensure enough food for the desired number of servings. In other words, 15.65 became 15.6 instead of 15.7 so that more, rather than less, food will be purchased.

**Column 4 - Serving Size per Meal Contribution:** describes a serving by weight, measure, or number of pieces or slices. Sometimes both measure and weight are given, or the measure and number of pieces or slices.

Items such as a piece of cooked chicken are given an approximate serving size in measure, with weight in parentheses. For example, for 3.7 oz raw chicken drumsticks, Column 4 reads: 1 drumstick (about 1.8 oz cooked chicken with skin).

For foods specified in the meal patterns, the serving size given in this column can be credited toward meeting the meal pattern requirements. For many fruits and vegetables, both pieces and 1/4-cup servings are included.

**Column 5 - Purchase Units for 100 Servings:** shows the number of purchase units you need for 100 servings. This number was calculated using the purchase unit listed in Column 2 and the serving size (by weight) listed in Column 4. Numbers in Column 5 have been rounded up to help ensure enough food is available for one hundred servings.

**Column 6 - Additional Information:** provides other information to help you calculate the amount of food you need to purchase and/or prepare.

For many food items, this column shows the quantity of ready-to-cook or cooked food you will get from a pound of food as purchased. For instance, it tells you 1 pound of fresh, whole, 125-138 count apples will yield 0.78 pounds of raw, cored, peeled, ready-to-cook or -serve apples.

For many processed foods, this column also gives the weight or number of cups of drained vegetable or fruit from various can sizes. For example, for carrots, canned, sliced, No. 10 can, Column 6 tells you that one No. 10 size can provides about 9-1/4 cups of heated, drained sliced carrots.

### How can you use the Yield Data?

The data in the yield tables can help you in a variety of ways as you plan menus, make purchasing decisions, and check to make sure meals will meet Child Nutrition Program requirements.

On the following pages is an easy-to-follow guide. Through a variety of practical examples, it shows you how to:

- Determine number of purchase units needed to obtain the desired number of servings of a particular food.

## Working with the Food Buying Guide

- Adjust portion sizes and calculate servings to meet the basic minimum requirements.
- Calculate the quantity of food to buy to obtain the correct amount of ready-to-cook food for a recipe.
- Determine correct yields for foods purchased prepared and ready-to-cook or -use. This is especially useful for fresh fruits and vegetables.
- Make cost comparisons.

### Calculating how much food you need for a given number of servings

The methods and examples on the following pages illustrate how you might use the yield data tables for a particular purpose.

- Foods are most often purchased in case lots. Keep in mind that the purchase amount may differ from the calculated amount to prepare a menu item.
- Always *round up* when calculating *how much food to buy*.
- Always *round down* when calculating the *creditable component* towards meeting a meal pattern requirement.

To calculate how much of any food to purchase you should begin by asking yourself the following questions:

- How many servings will I need?
- Will different serving sizes be used for various age/grade groupings?
- What is my planned serving size for this food?
- In what form will I purchase this food?
- What serving size is listed in Column 4?
- Is the listed serving size the same as my planned serving size?
- How many purchase units of the food will I need to buy?





### Method 1 – Using Column 3

*Variation 1 – No conversion of serving size needed*

- |      |                           |
|------|---------------------------|
| I-51 | A. Carrot slices, cooked  |
| I-52 | B. Ground beef, commodity |

*Variation 2 – Conversion of serving size required*

- |      |  |
|------|--|
| I-53 | C. Roast beef – round, without bone      |
| I-54 | D. Baked beans, vegetarian, canned       |
| I-56 | E. Crinkle cut fries, ovenable           |
| I-57 | F. Nut butters (including peanut butter) |
| I-58 | G. Eggs, large, shell, fresh             |
| I-59 | H. Cereals and cereal grains             |

### Method 2 – Using Column 5

- |      |                                   |
|------|-----------------------------------|
| I-60 | A. Meatloaf                       |
| I-61 | B. Green beans, frozen, cut       |
| I-62 | C. Converting Column 5 yield data |

### Method 3 – Using Column 6

- |      |                                    |
|------|------------------------------------|
| I-63 | A. Broccoli, fresh, ready-to-cook  |
| I-64 | B. Iceberg lettuce, fresh shredded |

### How to make cost comparisons

- |      |                                      |
|------|--------------------------------------|
| I-65 | A. Comparing cost of cut green beans |
|------|--------------------------------------|

## Method 1— Using Column 3

**General Procedure:** Divide the number of servings you need by the number of servings you will get from one purchase unit (pound, can, etc.) (Column 3).

Examples A and B show you how to calculate the number of purchase units needed to obtain the desired number of servings of a particular food. The serving size you are planning to serve is the same as the serving size listed in Column 4 of this *Food Buying Guide*. **No conversion of the serving size is needed.**

Examples C through H show you how to calculate the number of purchase units needed to obtain the desired number of servings of a particular food. The serving size(s) you are planning are not the same as the serving size(s) listed in the *Food Buying Guide*. **Conversion of the serving size is required.**



## Method 1 Example A: Carrot Slices, Cooked

You are planning to serve 1/4-cup servings of steamed carrot slices. You will be purchasing frozen, sliced carrots. How many pounds of frozen, sliced carrots will you need to buy?

**1: Estimate the number of servings of the prepared food you will need.**

You estimate that you will need 195 1/4-cup servings of cooked carrot slices.

**2: Locate the food in the *Food Buying Guide* in the form you intend to serve.**

For the listing *Carrots, frozen, sliced* (found in Column 1, page 2-31) you look for:

Cooked vegetable (found in Column 4)

**3: Check the serving size listed in Column 4. Compare this to your planned serving size.**

Column 4 reads: 1/4 cup cooked, drained vegetable

This is the same as your planned serving size to all students, so no conversion is needed. (Examples C through H show what to do when conversion is needed.)

**4: Refer to Column 2 to find the purchase unit.  
Refer to Column 3 for the number of servings you will get per purchase unit.**

Column 2 reads: Pound

Column 3 reads: 9.87

**5: Divide the number of servings needed by the number of servings you will get per purchase unit (Column 3.)**

Number of servings needed = 195

Servings per purchase unit = 9.87

195 divided by 9.87 = 19.75

**6: Round up to 20.0 lb to ensure enough food is available.**

**ANSWER:** You will need 20.0 pounds of frozen, sliced carrots for 195 1/4-cup servings of cooked, sliced carrots.



### Method 1 Example B: Ground Beef, USDA Commodity (not more than 16 % fat)

You are planning to serve 1-1/2 ounce portions of cooked ground beef. How many purchase units of frozen ground beef, USDA Commodity, not more than 16% fat, do you need to buy?

**1: Estimate the number of servings of the prepared food you will need.**

You estimate that you will need 60 1-1/2 ounce servings

**2: Locate the food in the *Food Buying Guide* in the form you intend to purchase (Column 1), then locate the form of the food you intend to serve (Column 4).**

For the listing *Ground Beef, USDA Commodity, not more than 16% fat*, you will need to use the yield data for ground beef, not more than 20% fat (found in Column 1, page 1-16) you look for:

Cooked lean meat (*found in Column 4*)

**3: Check the serving size listed in Column 4. Compare this to your planned serving size.**

Column 4 reads:

1-1/2 ounces cooked lean meat

This is the same as your planned serving size, so no conversion is needed. (Examples C through H show what to do when conversion is needed.)



**4: Refer to Column 2 to find the purchase unit. Refer to Column 3 for the number of servings you will get per purchase unit.**

Column 2 reads: Pound

Column 3 reads: 7.89

**5: Divide the number of servings needed by the number of servings you will get per purchase unit.**

Number of servings needed = 60

Servings per purchase unit = 7.89

60 divided by 7.89 = 7.60

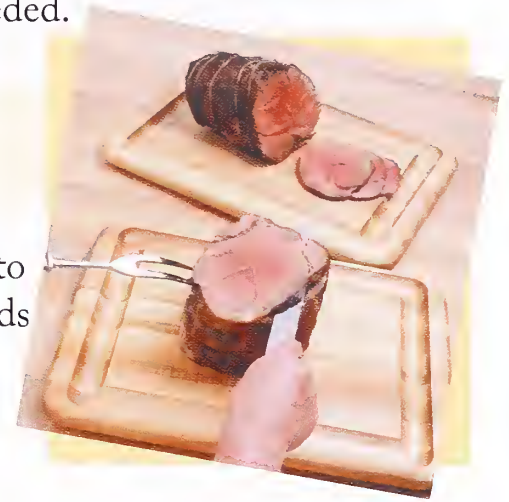
**6: Round up to 7.75 lb to ensure enough food is available.**

**ANSWER:** You will need 7-3/4 pounds of USDA Commodity ground beef, not more than 16% fat, for 60 1-1/2 oz servings of cooked ground beef.

- For multiple serving sizes of *meat, poultry, fish*, or cheese multiply the number of people to be served times each serving size in ounces to get the ounces needed. Add the results to get the total ounces needed.

### Method 1 Example C: Beef Round Roast, without bone

You are planning to serve boneless, cooked roast beef to 75 students of different grade levels. How many pounds of raw beef round roast, without bone, will you need?



- 1: Estimate the number of servings and the serving size of the prepared food for each age/grade.**

You estimate that of the 75 planned servings, 45 will be served 1-1/2 ounces each and 30 will be served 2 ounces each.

- 2: Locate the food in the *Food Buying Guide* in the form you intend to purchase (Column 1), then locate the food in the form you intend to serve (Column 4).**

For the listing “Beef, round roast, without bone” (found in Column 1 on page 1-18) you look for:

Cooked lean meat (found in Column 4)

- 3: Check the serving sizes listed in Column 4. Compare this to your planned serving sizes.**

Column 4 reads: 1 ounce cooked lean meat *and* 1-1/2 ounce cooked lean meat  
Since there is no serving size for 2 ounces of cooked lean meat, **a conversion is needed.**

- 4: Calculate the total ounces of cooked lean meat needed.**

45 servings X 1.5 oz = 67.5 ounces

30 servings X 2.0 oz = 60.0 ounces

127.5 ounces total cooked lean meat

You need a total of 127.5 ounces of cooked lean meat. Since this total is in units of 1 ounce, you can now use the serving size of 1 ounce cooked lean meat as found in Column 4.

- 5: Refer to Column 2 to find the purchase unit. Refer to Column 3 for the number of servings you will get per purchase unit.**

Column 2 reads: Pound

Column 3 reads: 9.76



**6: Divide the total number of ounces needed by the number of servings you will get per purchase unit. (Column 3)**

Number of total ounces needed = 127.5

Servings per purchase unit = 9.76

127.5 divided by 9.76 = 13.06

**7: Round up to 13.25 lb to ensure enough food is available.**

**ANSWER: You will need 13-1/4 pounds of raw beef round roast without bone, for the required serving sizes for 75 people.**

For multiple serving sizes of *cooked dry beans or peas* convert each serving size to the number of 1/4-cup servings needed. This is done by dividing each serving size by 1/4 and multiplying the result by the number of people to be served.

- If you prefer working with decimals instead of fractions, see Table 6 on page I-37.
- For multiple serving sizes, convert each one to 1/4-cup servings and add the results to obtain the total 1/4-cup servings.
- If you are crediting beans as the meat alternate component:
  - 1/2 cup beans = 2 oz equivalent meat alternate
  - 3/8 cup beans = 1-1/2 oz equivalent meat alternate
  - 1/4 cup beans = 1 oz equivalent meat alternate
  - 1/8 cup beans = 0.5 oz equivalent meat alternate

### **Method 1 Example D: Baked Beans, Vegetarian, canned**

You are planning to serve 1/8-cup servings of canned, vegetarian baked beans for part your vegetables/fruits component. You purchase USDA Commodity baked beans in sauce, vegetarian, in No. 10 cans (108 oz). How many No. 10 (108 oz) cans will you need?

**1: Estimate the number of servings of prepared food you will need.**

You estimate that you will need 120 1/8-cup servings.





**2: Locate the food in the *Food Buying Guide* in the form you intend to serve.**

For the listing *bean products, canned: beans baked or in sauce, vegetarian, includes USDA Commodity* (found in Column 1, on page 2-19)

you look for: heated vegetable (found in Column 4)

**3: Check the serving size listed in Column 4. Compare this to your planned serving size.**

Column 4 reads: 1/4-cup heated vegetable with sauce

Since there is no serving size for 1/8-cup of heated baked beans with sauce, **a conversion is needed.**

**4: Calculate the number of 1/4-cup servings of baked beans with sauce needed.**

*Divide 1/8 by 1/4* (convert fractions to decimals; see Table 6:  $1/8 = 0.125$ , and  $1/4 = 0.25$ )

$0.125 \text{ divided by } 0.25 = 0.5$

*Multiply the factor (0.5) by the number of servings needed (120)*

$0.5 \text{ multiplied by } 120 = 60 \text{ 1/4-cup servings}$

You need a total of 60 1/4-cup servings of baked beans with sauce. Since this number is in units of 1/4-cup servings, you can now use the serving size of 1/4-cup baked beans with sauce as found in Column 4.

**5: Refer to Column 2 to find the purchase unit. Refer to Column 3 for the number of servings you will get per purchase unit.**

Column 2 reads: No. 10 can (108 oz)

Column 3 reads: 47.1

**6: Divide the total number of 1/4-cup servings needed by the number of servings you will get per purchase unit. (Column 3)**

Number of 1/4-cup servings needed = 60

Servings per purchase unit = 47.1

$60 \text{ divided by } 47.1 = 1.27$

**7: Round up to 1-1/3 cans to ensure enough food is available.**

**ANSWER:** Since you can only buy whole cans of product, you will need to open 2 No. 10 (108 oz) cans of USDA commodity baked beans in sauce, vegetarian, but only need to prepare 1-1/3 cans, to serve 120 portions of 1/8-cup vegetarian baked beans.

**Note:** For products having data for can sizes other than the No. 10 can used in example D, substitute the servings per purchase unit for the size of can of your choice in step 5.

For multiple serving sizes of vegetables and fruit, convert each serving size to the number of 1/4-cup servings. To do this, divide each serving size by 1/4 and multiply the result by the number of people to be served that size portion.

### Method 1 Example E: Crinkle Cut French Fries, Ovenable



You are planning to serve 1/2-cup servings of baked french fries.

**1: Estimate the number of servings of baked french fries you will need.**

You estimate that you will need 45 1/2-cup servings of baked french fries.

**2: Locate the food in the *Food Buying Guide* in the form you intend to serve.**

For the listing *Potatoes, French fries, frozen, Crinkle Cut, Low moisture, Ovenable* (found in Column 1 on page 2-68) you look for:

Cooked vegetable (found in Column 4)

**3: Check the serving size listed in Column 4. Compare this to your planned serving size.**

Column 4 reads: 1/4-cup cooked vegetable

Since there is no serving size for 1/2 cup of cooked french fries, **a conversion is needed.**

**4: Calculate the number of 1/4-cup servings of french fries needed.**

*Divide 1/2 by 1/4 (convert fractions to decimal; see table 6:*

$1/2 = 0.50$  and  $1/4 = 0.25$ )

$0.50$  divided by  $0.25 = 2.0$

*Multiply the factor (2.0) by the number of servings needed (45)*

$2.0$  multiplied by  $45 = 90$  1/4-cup servings

You need a total of 90 1/4-cup servings of french fries. Since this number is in units of 1/4-cup servings, you can now use the serving size of 1/4-cup baked vegetable as found in Column 4.

- 5: Refer to Column 2 to find the purchase unit. Refer to Column 3 for the number of servings you will get per purchase unit.

Column 2 reads: pound

Column 3 reads: 16.2

- 6: Divide the total number of 1/4-cup servings needed by the number of servings you will get per purchase unit. (Column 3)

Number of 1/4-cup servings needed = 90

Servings per purchase unit = 16.2

90 divided by 16.2 = 5.55

- 7: Round up to 5.75 lb to ensure enough food is available.

**ANSWER:** You will need 5-3/4 pounds of frozen French fries, crinkle cut, low moisture, ovenable, to serve 45 1/2-cup portions of baked french fries.

#### Method 1 Example F: Nut Butters (including peanut butter)

You want to serve 1-tablespoon servings of peanut butter as part of the meat/meat alternate component of the meal. How many 32 oz jars of peanut butter do you need to purchase?



- 1: Estimate the number of servings of peanut butter you will need.

You estimate that you will need 65 servings.

- 2: Multiply the number of people to be served times the number of tablespoons for each serving (for this example 1 serving is 1 Tbsp). This gives you the total number of tablespoons needed.

65 multiplied by 1 = 65 Tbsp needed

- 3: Since the *Food Buying Guide* does not have data for 1-Tbsp servings, you need to convert the total tablespoons into a serving size that is given in the *Food Buying Guide*. Divide the total number of single tablespoons needed by 2. This gives you the total number of 2-Tbsp servings needed.

65 divided by 2 = 32.5 2-Tbsp servings

- 4: Refer to Column 2 to find the purchase unit. Refer to Column 3 for the number of 2-Tbsp servings you will get per purchase unit. (peanut butter is found on page 1-40.)

Column 2 reads: 32 oz jar

Column 3 reads: 28.8



- 5: Divide the number of 2-Tbsp servings by the number of servings per purchase unit (Column 3). This gives you the number of purchase units needed.

32.5 divided by 28.8 = 1.12 units

- 6: Round up to 1.25 jars to ensure enough food is available.

*ANSWER: You will need 1-1/4 32-ounce jars of peanut butter to serve 65 1-Tbsp servings of peanut butter. Keep in mind that since only whole jars of any product can be purchased, you will need to purchase 2 32-oz jars of peanut butter to provide 65 1-Tbsp servings.*

#### Method 1 Example G: Eggs, large, shell, fresh

You want to serve cooked egg in portions that will provide 1-1/2 ounces of equivalent meat alternate. How many whole large shell eggs do you need?

- 1: Estimate the number of servings of prepared egg you will need.

You estimate that you will need 43 servings of cooked egg.

- 2: Multiply the number of people to be served times the serving size(s) (in ounces of equivalent meat alternate).

This gives you the total ounces of equivalent meat alternate needed.

43 multiplied by 1.5 = 64.5 total ounces of equivalent meat alternate

- 3: Divide the total ounces of equivalent meat alternate needed by two (2) since one large egg in this FBG provides 2 oz equivalent meat alternate. (Column 3)

This gives you the total number of whole large shell eggs needed.

64.5 divided by 2 = 32.25

- 4: Round up to 33 whole large shell eggs.

**ANSWER:** You will need 33 whole large shell eggs to provide 43 portions, each of which will provide 1-1/2 ounces of equivalent meat alternate.





## Method 1 Example H: Cereals and Cereal Grains

You want to serve regular cooked oatmeal as part of an adult care menu. How much dry, regular, rolled oats is needed?



**1: Estimate the number of servings of prepared food you will need.**

You estimate that you will need 70 1-cup servings.

**2: Convert the serving size of cooked cereal or cereal grains to the number of 1/2-cup servings since Column 4 does not provide data for a 1 cup serving.**

*Divide 1.0 by 1/2 (convert fractions to decimals; see Table 6: 1/2 = .5)*

1.0 divided by .5 = 2

*Multiply the factor by the number of servings needed.*

2 multiplied by 70 = 140 1/2-cup servings of cooked oatmeal needed

**3: Locate the item as purchased in Column 1**

Cereal Grains, Oats (Group H) Rolled, Regular, dry includes USDA Commodity (see page 3-23)

**4: Refer to Column 2 to find the purchase unit. Refer to Column 3 for the number of 1/2-cup servings you will get per purchase unit.**

Column 2 reads: 1 Pound

Column 3 reads: 22.7

**5: Divide the total number of 1/2-cup servings of cooked oats needed by the number of servings you will get per purchase unit.**

140 divided by 22.7 = 6.16 pounds dry oats

**6: Round up to 6.25 pounds to ensure enough food is available.**

**ANSWER:** You will need 6-1/4 pounds of dry rolled oats, regular to provide 70 1-cup servings of cooked oatmeal.

## Method 2— Using Column 5

You may use the purchase unit for 100 servings in Column 5 to determine how much of each food you need to prepare a specified number of servings of a given size. This method is useful when planning large numbers of meals.

**General Procedure:** Multiply the numbers of serving sizes (Column 4) times the number of purchase units (Column 5) and divide by 100.

Examples A and B show you how to calculate the total number of pounds needed to obtain the desired number of servings of a particular food using Column 5.

Example C shows you how to convert the Column 5 data – purchase units for 100 servings – to the purchase unit for a different number of servings.

### Method 2 Example A: Meat Loaf

Assume that you need enough USDA Commodity ground beef (not more than 16% fat) to prepare meatloaf for 325 people.

1. Estimate the total number of people in each age group expected to eat that food item.
2. Multiply the total number of servings expected to be taken by each group by the serving size to determine the amount you need for that age group.
3. Add those amounts together to determine the total quantity. (Meat/meat alternate is in ounces, vegetables and fruits are in 1/4-cup servings, and bread is listed in servings or equivalents.)

Group	Number		Serving Size	Total
Group III (K-3)	153	(X)	1-1/2 oz	= 229.5 oz
Group IV (grades 4-12)	157	(X)	2 oz	= 314.0 oz
Group V (grades 7-12)	15	(X)	3 oz	= 45.0 oz
Total quantity				588.5 oz

4. Determine the purchase unit for 100 servings for your food item according to how it will be served.

According to the yield table, you need 8.5 pounds of *ground beef (USDA Commodity, not more than 16% fat)* for 100 1-ounce servings of cooked lean meat. (See page 1-16)





5. Multiply the total quantity by the purchase unit for 100 servings indicated in Column 5 and then divide the answer by 100.

$$588.5 \times 8.5 \div 100 = 50.02 \text{ pounds}$$

6. Round up to 50.1 lb to ensure enough food is purchased.

**ANSWER:** You will need 50.1 pounds of raw ground beef (USDA Commodity, not more than 16% fat) for the meatloaf.

### Method 2 Example B: Green Beans, frozen, cut

Assume you have an offer-verses-serve school and need enough frozen cut green beans to serve the same 325 people in Method 2 Example A with the servings planned below.



1. Estimate the total number of people in each age group expected to eat that food item.
2. Multiply the total number of servings expected to be taken by each group by the serving size to determine the amount you need for that age group. See Table 6 for cup to decimal conversions.
3. Add those amounts together to determine the total quantity. Then multiply the total cups by 4 to get the total 1/4-cup servings needed. (Meat/meat alternate is listed in ounces, vegetables and fruits are in 1/4-cup servings, and bread is in servings or equivalents.)

Group	Number	Serving Size	Total
Group III (K-3)	130	1/8 cup (.125)	16.25 cups
Group IV (grades 4-12)	125	1/4 cup (.25)	31.25 cups
Group V (grades 7-12)	10	1/4 cup (.25)	<u>2.50 cups</u>
Total			50.00 cups or 200.00 1/4-cups

4. Determine the purchase unit for 100 servings for your food item according to how it will be served.

According to the yield table (see page 2-16), you need 8.7 pounds of frozen cut green beans for 100 1/4-cup servings of cooked beans.

5. Multiply the total quantity of 1/4-cup servings by the purchase unit for 100 servings indicated in Column 5 and then divide the answer by 100.

$$200.0 \times 8.7 \div 100 = 17.4 \text{ pounds}$$

6. Round up to 17.5 lb to ensure enough food is purchased.

**ANSWER:** You will need 17-1/2 pounds of frozen cut green beans.

### Method 2 Example C: Converting Column 5 Yield Data

Column 5 of the yield data tables gives the numbers of purchase units needed for 100 servings. Some programs, such as the Child and Adult Care Food Program, Summer Food Service Program, Afterschool Snack Program, or home day care site providers, may not plan meals for a 100 or more; they may plan for 50 or 25 meals. The Column 5 yield data can easily be converted to provide the number of purchase units needed for a smaller number of meals.

*Example:* You plan to serve 50 meals and want to know how many pounds of frozen whole kernel corn to buy.

1. Divide 100 by the number of meals you are planning.

$$100 \text{ divided by } 50 = 2$$

2. Find, in Column 5, the number of purchase units for pounds of frozen whole kernel corn needed for 100 servings of cooked, drained vegetable.

$$\text{Purchase units for 100 servings} = 9.1 \text{ lb}$$

3. Divide the answer from Step 2 by the answer in Step 1

$$9.1 \text{ divided by } 2 = 4.55$$

4. Round up to the nearest practical measure.

$$4.55 \text{ rounds up to } 4.66$$

**Answer:** You will need 4-2/3 pounds of frozen whole kernel corn for 50 servings.

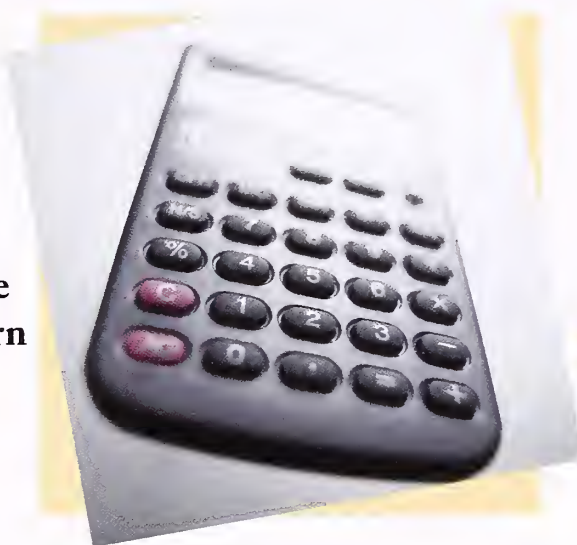
If you want to know the purchase units for 25 servings go through the same process above using 25 in step 1.

$$100 \text{ divided by } 25 = 4$$

$$9.1 \text{ divided by } 4 = 2.27$$

$$2.27 \text{ rounds up to } 2.33 \text{ lb (2-1/3 lb)}$$

The same method can be followed for any number of servings you would like to serve.





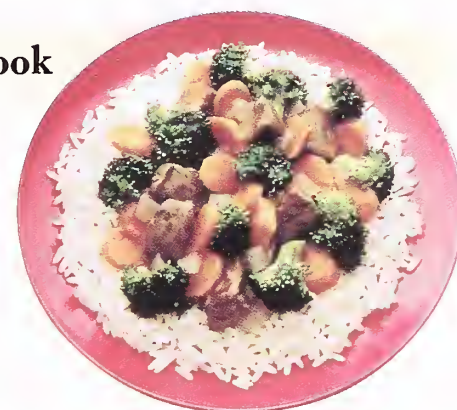
### Method 3— Using Column 6

**When would you use Column 6?** Use the additional information in Column 6 to calculate yields for foods purchased in a different form from that listed in Column 1. For example, the *Food Buying Guide* lists iceberg lettuce, whole, as-purchased, and served as shredded lettuce. Column 6 gives the yield information needed to calculate how many servings you would get if you bought the lettuce already shredded.

**How to calculate the quantity of food to buy in order to obtain the correct amount of ready-to-cook food for a recipe.**

#### Method 3 Example A: Broccoli, fresh, ready-to-cook

You are planning to serve a Stir Fry. After adjusting the recipe for the number of servings, you determine that 5 lb 10 oz of chopped, fresh broccoli, ready-to-cook is needed.



The ready-to-cook quantity is the amount you need of trimmed, chopped vegetable. But how much whole, fresh broccoli will you need to buy to be sure to have the correct amount after trimming?

- 1: Refer to the yield information in Column 6 for the yield determined from the food you will be purchasing to the form you need for your recipe.**

For Broccoli, Fresh, untrimmed, Column 6 (page 2-25) reads:

1 lb AP = 0.81 lb ready-to-cook

*In other words, 1 pound whole, fresh, untrimmed broccoli as purchased (AP), yields 0.81 pound trimmed, ready-to-cook broccoli.*

- 2: Divide the ready-to-cook (RTC) quantity called for in the recipe by yield data in Column 6.**

If the recipe lists the desired RTC quantity in pounds and ounces, begin by determining the decimal equivalent (see Table 8, page I-39).

The stir-fry recipe calls for 5 lb 10 oz (5.62 lb) of ready-to-cook chopped broccoli.

5.62 lb divided by 0.81 = 6.93 lb

Round up to the next smallest practical measure

6.93 lb = 7 lb

**ANSWER:** You will need to purchase 7 lb of good quality, whole, raw, fresh broccoli to obtain 5 lb 10 oz of chopped ready-to-cook broccoli.

How to determine:

- the number of servings obtained from a bulk pack of food purchased prepared and ready-to-cook or use; and
- the number of servings from one pound of the same product.

### Method 3 Example B: Iceberg lettuce, fresh

You purchase shredded fresh iceberg lettuce, ready-to-use, in 10 pound bags.

- How many 1/4-cup servings of shredded lettuce will each 10-pound bag provide?
- How many 1/4-cup servings will you get from just 1-pound of this product?

**1: Refer to the yield information in Column 6 for the form of the food you will be purchasing as described in Column 1.**

For lettuce, fresh, iceberg, head, untrimmed (see page 2-45), Column 6 reads:

1 lb AP = 0.76 lb ready-to-serve shredded lettuce

**2: Determine the number of pounds of fresh head lettuce it would take to get 10 pounds of ready-to-serve shredded lettuce.**

Divide the number of pounds of ready-to-use lettuce (10 lb) by the quantity of ready-to-use lettuce obtained from 1 pound, untrimmed head lettuce.

10 pounds divided by 0.76 pounds = 13.15 pounds of head lettuce

**3: Refer to Column 3 to find the number of 1/4-cup servings per pound**

Column 2 reads: pound

Column 3 reads: 22.2

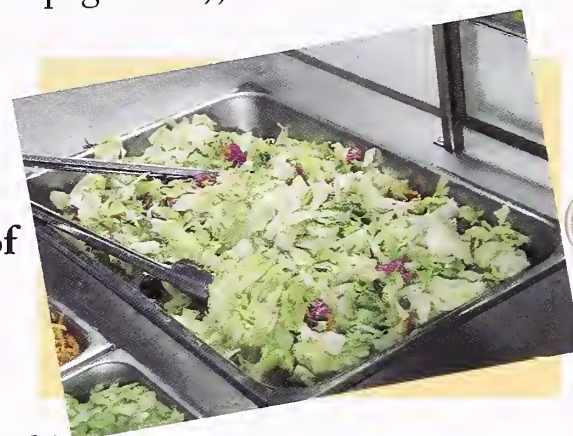
**4: Multiply the number of pounds of head lettuce by the number of 1/4-cup servings shredded lettuce provided per pound.**

Pounds of head lettuce = 13.15

1/4-cup servings per pound = 22.2

13.15 X 22.2 = 291.9 1/4-cup servings of shredded lettuce

**ANSWER 1: You will get 291.9 1/4-cup servings of shredded lettuce from a 10 lb bag of ready-to-use shredded lettuce.**





## How To Make Cost Comparisons

- 5: To calculate the servings per pound: Divide the total unrounded number of servings per bag by the total pounds of product in the unopened bag to get the number of 1/4-cup servings from 1 pound.**

Servings per bag = 291.9

Pound weight of product in unopened bag = 10

291.9 divided by 10 = 29.1 1/4-cup servings

**ANSWER 2: You will get 29.1 1/4-cup servings per pound of ready-to-use shredded lettuce.**

How to compare the cost per serving for food purchased in different forms by using Column 5.

### Comparing cost of cut green beans

You want to compare the raw food cost per serving of cut green beans to be served cooked to help you decide if you should buy fresh green beans, canned cut green beans, or frozen cut green beans. The cost per pound of each form of green bean (for this example) is as follows: fresh, \$0.30/lb; canned, cut, \$0.24/lb \*; frozen, cut, \$0.36/lb.

- 1: Using Column 5, obtain the purchase units for 100 servings for cut green beans served cooked with the purchase unit of "Pound." (See pages 2-14 through 2-16).**

Fresh green beans = 9.0

Canned cut green beans = 14.0

Frozen cut green beans = 8.7

- 2: Divide the purchase units for 100 servings by 100 by moving the decimal two places to the left. This gives you the purchase units for 1 serving.**

Fresh green beans = 0.090

Canned cut green beans = 0.140

Frozen cut green beans = 0.087

- 3: Multiply the purchase units for one serving by the cost of one pound of the item. This gives you the cost of one serving size.**

Fresh green beans:  $0.090 \times .30 = \$0.027$

\* Canned cut green beans  $0.140 \times .24 = \$0.034$

Frozen cut green beans  $0.087 \times .36 = \$0.031$

\*To calculate the cost per pound if you only have the cost per can:

- 1) Determine the number of pounds of food in one can, then
- 2) Divide the cost per can by the number of pounds of food in one can.





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4: Compare the raw food cost per servings.

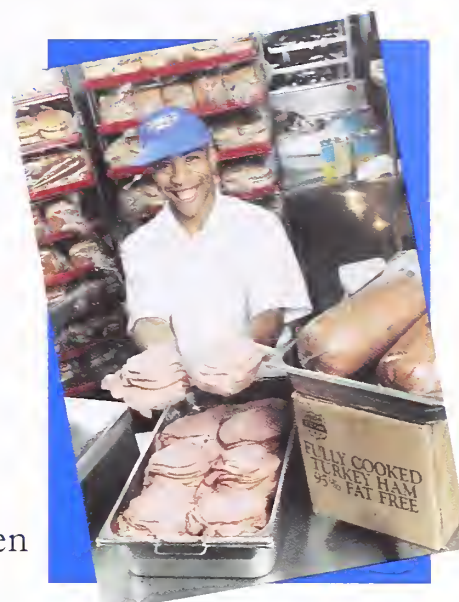
**ANSWER:** Based on raw food costs only, fresh green beans are the most economical. However, the raw food cost does not take into account labor expenses which will vary according to the form of the food purchased. For example, someone will have to wash, prep, and cook fresh beans. There are also different costs for the various storage conditions. These are only a few of the factors that may add significant cost per pound to the raw food.

## Section

# 1

## Food Buying Guide for Child Nutrition Programs

# Meat/Meat Alternates



### Meat and Meat Alternates for the Child Nutrition Programs

For the food-based menu planning approaches, the Child Nutrition Program regulations require that a school or child care lunch or child care supper served must contain the amount of meat or meat alternate given in the Meal Pattern Charts as shown on pages I-7 through I-27. A meat or meat alternate may be served as one of the two components of the snack for the National School Lunch, Child and Adult Care, or Summer Food Service Programs or as part of the breakfast for the School Breakfast Program. Meat and meat alternates include meat, poultry, fish, cheese, yogurt, dry beans and peas, whole eggs, alternate protein products,<sup>1</sup> peanut butter or other nut or seed butters, and nuts and seeds.

For the NSLP and SFSP, enriched macaroni-type products with fortified protein may be counted as meeting part of the meat and meat alternate requirement. Alternate protein products may be counted as meeting all or part of the meat/meat alternate requirement for all Child Nutrition Programs. For detailed information and assistance on the proper use of these products, contact your State agency.

- The meat or meat alternate for the lunch or supper must be served in the main dish or in the main dish and one other menu item.
- A serving of a finished food served as part of a meal must contribute a minimum of 0.25 ounces of meat or meat alternate to be eligible to count towards the meat/meat alternate requirement.

#### This section contains yield data for:

- servings of fresh and frozen boneless meat, poultry, and fish, and yields for some fresh and frozen meat, poultry, and fish with bones (e.g., chicken drumstick) given in 1- and 1-1/2-ounce servings;
- servings of dry beans and peas given in 1/4-cup and 3/8-cup servings, and peanut butter and other nut butters given in 2 Tbsp and 3 Tbsp measures equivalent to 1 and 1-1/2 ounces of meat alternate, respectively;

<sup>1</sup>Information about Alternate Protein Products (APP) can be found in 7 CFR Parts 210, 215, 220, 225, and 226.

- whole eggs expressed in large egg equivalents (1 large egg = 2 ounces equivalent meat alternate) and 1/2 large egg equivalents (1/2 large egg = 1 ounce equivalent meat alternate);
- “USDA Commodity” or “Market pack” food items and are designated as such in Column 1. For items where the USDA commodity and market pack are both available, the items are designated as “Includes USDA Commodity;”
- certain commercially prepared combination foods having USDA, Food Safety and Inspection Service (FSIS) standards requiring a minimum percent of meat or poultry. Products listed include canned and frozen meat and poultry products at portion sizes to provide at least 1 ounce of cooked meat or poultry per average-size serving; and
- standard commercially prepared canned bean, and canned pea soups where one 1/2-cup serving provides 1/4-cup cooked beans (1 oz equivalent meat alternate).

Note: Information for nonspecific products such as chicken, beef, or pork nuggets and patties is *not* provided in this *Food Buying Guide*. Nonspecific products do not require a minimum amount of meat by FSIS labeling standards of identity. There is no general way to determine how much meat or poultry is contained in these products, especially since each manufacturer has its own formulation. School districts using these products must either obtain a CN label (see Appendix C for information about the CN labeling program) or manufacturer’s documentation to credit each specific product used.

## Definitions

- A *serving of cooked meat* is understood to be lean meat without bone.
- A *serving of cooked fresh or frozen poultry* includes boneless meat and skin unless otherwise indicated.
- A *serving of yogurt* includes plain or flavored, unsweetened or sweetened – all types of yogurt must be commercially prepared. Yogurt is further defined in the program regulations under 7 CFR parts 210.2, 220.2(bb), 226.2, and 225.2.
- “*Market pack*” refers to foods available on the market.
- IMPS* stands for *Institutional Meat Purchase Specifications*. These specifications describe in exact detail items most commonly used by foodservice establishments and institutional purchasers for purchasing meat. They are also used in USDA commodity specifications. Only meat certified by the Meat Grading and Certification Branch (MGCB) may be labeled “IMPS.”





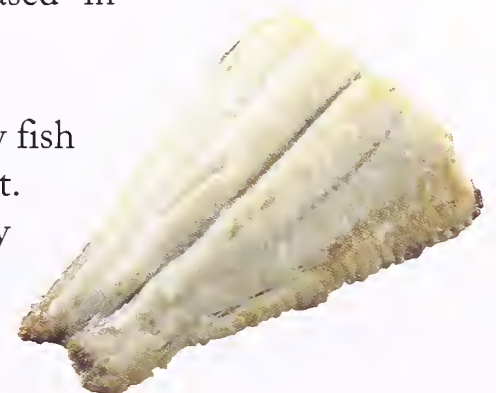
- **Like IMPS:** Products having the description “like IMPS” imply that the IMPS standard for the described meat cut has been met but the meat has not been certified by the MGCB – hence it is “like” or “similar” to IMPS meat but is not labeled as such. The data for the products contained in the Food Buying Guide was derived using certified IMPS meat, but meats matching the descriptions and specifications may use the food buying guide yield for the matching IMPS product.
- **PFF** stands for “Protein Fat Free” which is a procedure used by cured pork processors to reflect the presence of added ingredients, including water in cured pork products, and relates labeling claims to the percent of meat protein in the product. Manufacturers must monitor the PFF since adding water and other ingredients dilutes the natural protein content. Labeling regulations established by the Food Safety Inspection Service state that products such as “Ham,” “Ham with Natural Juices,” Ham Water Added,” etc., must comply with the minimum meat PFF percentages as stated in the regulations.

Note: Products named “Ham and Water Product, X% of weight is added ingredients” do not have standardized PFF values since the amount of water/ingredients added is not limited. For products labeled “Ham and Water Products X% of weight is added ingredients” to be properly utilized in Child Nutrition programs, you should either 1) purchase a CN labeled product or 2) take out the percent of added water/ingredients by multiplying the finished weight by the percent added ingredients and then subtracting that amount from the finished weight, divide by the manufacturer’s cooking yield to obtain the raw weight of the product, and then multiply by the food buying guide yield for the specific cut of pork used to process the product.

## Yields

Standard commercially prepared combination foods: The yields for commercially prepared combination foods having Federal standards of identity (see 9 CFR parts 319 and 381 for FSIS regulations pertaining to standards of identity for meat and poultry products) listed under Chicken Products (and Beef or Turkey Products) are based on the minimum meat and poultry requirements for food products that are packed for interstate shipment under Federal Meat and Poultry Inspection. The serving size listed for these products will provide at least one equivalent ounce of cooked meat or poultry. Purchasers of these products will need to ensure that the name of the food on the product label exactly matches the *Food Buying Guide* description for the “Food As Purchased” in Column 1 before using the crediting information.

Breaded fish portions or sticks: Yields are based on raw fish portions or sticks and the amount of fish in the product. “Precooked” or “Fried” seafood is not fully cooked; only the breading or batter is flash-fried to set. The fish is raw. For serving purposes the product must be fully



cooked. For crediting purposes, the calculations were done using the weights and yields for raw fish served cooked.

Yields of cooked meat and poultry vary with type, age, fat content, and weight of the animal, and the method, time, and temperature of cooking. *The quantities of food to purchase are based on average yields of cooked meat and poultry.*

## Explanation of the Columns

The yield information is presented in tabular form for easy reference. The columns are numbered 1 through 6 as follows:

**Column 1 Food As Purchased, AP:** The individual foods are arranged in alphabetical order by species (for example, ham is listed under PORK, MILD CURED). Within each species, all of the raw items are listed first followed by cooked and/or canned and/or products. For Chicken and Turkey, the raw items are presented starting with the whole bird followed by whole parts and then the remaining raw items. Other characteristics are given, such as fat content, with or without bone, percent of fish in fish products, and weight of individual pieces of chicken. The items are listed according to the forms in which they appear in the market – fresh, canned, frozen, or dehydrated.

**Column 2 Purchase Unit:** The purchase unit is generally given as either a pound, a No. 10 can, or, in many cases, a smaller size can.

**Column 3 Servings per Purchase Unit, EP (Edible Portion):** This column shows the number of 1 or 1-1/2 ounce lean meat equivalent servings you will get from each purchase unit. Numbers in this column have been rounded *down* in order to help ensure enough food is purchased for the number of servings stated.

**Column 4 Serving Size per Meal Contribution:** The size of a serving is given as 1 or 1-1/2 ounce cooked lean meat or equivalent (1/4 cup or 3/8 cup of cooked beans or peas, 1 or 1-1/2 ounces of cheese, 1 egg (2 ounces), or 2 or 3 tablespoons of peanut butter). Individual servings such as frankfurters, chicken pieces, or fish portions are listed by the piece along with the equivalent ounces of lean meat given in parentheses under the portion size.

**Column 5 Purchase Units for 100 Servings:** This column shows the number of purchase units you need for 100 servings of the corresponding serving size listed in Column 4. Numbers in this column have been generally rounded *up* in order to help ensure enough food is purchased for the number of servings.

**Column 6 Additional Information:** This column gives other information to help you calculate the amount of food you need to prepare meals. It shows the amount of cooked ready-to-serve meat you will get from 1 pound of meat, poultry, seafood, or acceptable meat alternate as purchased.



# Food Buying Guide for Child Nutrition Programs

## Section 1 Meat/Meat Alternates

### Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, BLACK (TURTLE)</b>					
<b>Beans, Black (Turtle), dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (110 oz)	27.8	1/4 cup heated, drained beans	3.6	1 No. 10 can = about 62.0 oz (6-7/8 cups) heated, drained beans
	No. 10 can (110 oz)	18.5	3/8 cup heated, drained beans	5.5	
	No. 300 can (15-1/2 oz)	5.91	1/4 cup heated, drained beans	17.0	1 No. 300 can = about 10.5 oz (1-3/8 cups) heated, drained beans
	No. 300 can (15-1/2 oz)	3.94	3/8 cup heated, drained beans	25.4	
<b>Beans, Black (Turtle), dry</b> <i>Whole</i>	Pound	18.3	1/4 cup cooked beans	5.5	1 lb dry = 2-1/4 cups dry beans
	Pound	12.2	3/8 cup cooked beans	8.2	
<b>BEANS, BLACK-EYED or PEAS</b>					
<b>Beans, Black-eyed (or Peas), dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	37.7	1/4 cup heated, drained beans	2.7	1 No. 10 can = about 65.0 oz (9-3/8 cups) heated, drained beans
	No. 10 can (108 oz)	25.1	3/8 cup heated, drained beans	4.0	
	No. 300 can (15 oz)	4.91	1/4 cup heated, drained beans	20.4	
	No. 300 can (15 oz)	3.27	3/8 cup heated, drained beans	30.6	
<b>Beans, Black-eyed (or Peas), dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	28.3	1/4 cup cooked beans	3.6	1 lb dry = about 2-3/4 cups dry beans
	Pound	18.8	3/8 cup cooked beans	5.4	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, GARBANZO or CHICKPEAS</b>					
<b>Beans, Garbanzo or Chickpeas, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	42.0	1/4 cup drained beans	2.4	1 No. 10 can = about 68.4 oz (about 10-1/2 cups) drained, unheated beans
	No. 10 can (105 oz)	28.0	3/8 cup drained beans	3.6	
	No. 300 can (15 oz)	6.70	1/4 cup drained beans	15.0	1 No. 300 can = about 9.6 oz (1-2/3 cups) drained, unheated beans
	No. 300 can (15 oz)	4.46	3/8 cup drained beans	22.5	
	Pound	6.31	1/4 cup drained beans	15.9	
	Pound	4.20	3/8 cup drained beans	23.9	
<b>Beans, Garbanzo or Chickpeas, dry</b> <i>Whole</i>	Pound	24.6	1/4 cup cooked beans	4.1	1 lb dry = about 2-1/2 cups dry beans
	Pound	16.4	3/8 cup cooked beans	6.1	
<b>BEANS, GREAT NORTHERN</b>					
<b>Beans, Great Northern, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (110 oz)	32.4	1/4 cup heated, drained beans	3.1	1 No. 10 can = about 68.5 oz (about 8-1/8 cups) heated, drained beans
	No. 10 can (110 oz)	21.6	3/8 cup heated, drained beans	4.7	
	No. 300 can (14 oz)	4.37	1/4 cup heated, drained beans	22.9	
	No. 300 can (14 oz)	2.91	3/8 cup heated, drained beans	34.4	
<b>Beans, Great Northern, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	25.5	1/4 cup cooked beans	4.0	1 lb dry = about 2-1/2 cups dry beans
	Pound	17.0	3/8 cup cooked beans	5.9	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, KIDNEY</b>					
<b>Beans, Kidney, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	38.9	1/4 cup heated, drained beans	2.6	1 No. 10 can = about 65.0 oz (9-5/8 cups) heated, drained beans
	No. 10 can (108 oz)	25.9	3/8 cup heated, drained beans	3.9	
	No. 10 can (108 oz)	43.4	1/4 cup drained beans	2.4	
	No. 10 can (108 oz)	28.9	3/8 cup drained beans	3.5	1 No. 10 can = about 71.0 oz (10-3/4 cups) drained, unheated beans
	No. 2-1/2 can (30 oz)	11.6	1/4 cup heated, drained beans	8.7	
	No. 2-1/2 can (30 oz)	7.73	3/8 cup heated, drained beans	13.0	
	No. 2-1/2 can (30 oz)	12.6	1/4 cup drained beans	8.0	
	No. 2-1/2 can (30 oz)	8.40	3/8 cup drained beans	12.0	
	No. 300 can (15-1/2 oz)	5.61	1/4 cup heated, drained beans	17.9	1 No. 300 can = about 9.5 oz (1-3/8 cups) heated, drained beans
	No. 300 can (15-1/2 oz)	3.74	3/8 cup heated, drained beans	26.8	
	No. 300 can (15-1/2 oz)	5.88	1/4 cup drained beans	17.1	1 No. 300 can = about 10.0 oz (1-3/8 cups) drained, unheated beans
	No. 300 can (15-1/2 oz)	3.92	3/8 cup drained beans	25.6	
<b>Beans, Kidney, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	24.8	1/4 cup cooked beans	4.1	1 lb dry = about 2-1/2 cups dry beans
	Pound	16.5	3/8 cup cooked beans	6.1	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, LIMA</b>					
<b>Beans, Lima, dry, canned</b> <i>Green Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	42.4	1/4 cup heated, drained beans	2.4	1 No. 10 can = about 70.9 oz (11-3/4 cup) drained, unheated beans
	No. 10 can (105 oz)	28.2	3/8 cup heated, drained beans	3.6	
	No. 2-1/2 can (40 oz)	15.7	1/4 cup heated, drained beans	6.4	1 No. 2-1/2 can = about 27.0 oz (4-1/2 cups) drained, unheated beans
	No. 2-1/2 can (40 oz)	10.4	3/8 cup heated, drained beans	9.7	
	Pound	6.46	1/4 cup heated, drained beans	15.5	1 lb AP = about 11.0 oz (1-3/4 cups) drained, unheated beans
	Pound	4.30	3/8 cup heated, drained beans	23.3	
<b>Beans, Lima, dry</b> <i>Baby Whole</i> <i>Includes USDA Commodity</i>	Pound	23.4	1/4 cup cooked beans	4.3	1 lb dry = about 2-3/8 cups dry beans
	Pound	15.6	3/8 cup cooked beans	6.5	
<b>Beans, Lima, dry</b> <i>Fordhook (large) Whole</i>	Pound	27.0	1/4 cup cooked beans	3.8	1 lb dry = about 2-5/8 cups dry beans
	Pound	18.0	3/8 cup cooked beans	5.6	
<b>BEANS, MUNG</b>					
<b>Beans, Mung, dry</b> <i>Whole</i>	Pound	28.1	1/4 cup cooked beans	3.6	1 lb dry = about 2-1/4 cups dry beans
	Pound	18.7	3/8 cup cooked beans	5.4	
<b>BEANS, NAVY or PEA</b>					
<b>Beans, Navy or Pea, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	23.9	1/4 cup cooked beans	4.2	1 lb dry = about 2-1/4 cups dry beans
	Pound	15.9	3/8 cup cooked beans	6.3	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
BEANS, PINK					
Beans, Pink, dry, canned Whole Includes USDA Commodity	No. 10 can (110 oz)	34.0	1/4 cup heated, drained beans	3.0	1 No. 10 can = about 12-1/4 cups drained, unheated beans or about 8-1/2 cups heated, drained beans
	No. 10 can (110 oz)	22.6	3/8 cup heated, drained beans	4.5	
Beans, Pink, dry Whole Includes USDA Commodity	Pound	19.3	1/4 cup cooked beans	5.2	1 lb dry = 2-1/4 cups dry beans
	Pound	12.8	3/8 cup cooked beans	7.9	
BEANS, PINTO <sup>2</sup>					
Beans, Pinto, dry, canned Whole Includes USDA Commodity	No. 10 can (108 oz)	37.2	1/4 cup heated, drained beans	2.7	1 No. 10 can = about 67.4 oz (9-1/4 cups) heated, drained beans
	No. 10 can (108 oz)	24.8	3/8 cup heated, drained beans	4.1	
	Pound	5.51	1/4 cup heated, drained beans	18.2	
	Pound	3.67	3/8 cup heated, drained beans	27.3	
Beans, Pinto, dry Whole Includes USDA Commodity	Pound	21.0	1/4 cup cooked beans	4.8	1 lb dry = 2-3/8 cups dry beans
	Pound	14.0	3/8 cup cooked beans	7.2	
Beans, Pinto, dehydrated <sup>2</sup>	Pound	21.7	1/4 cup cooked beans	4.7	1 lb AP = 3-3/4 cups dehydrated beans
	Pound	14.4	3/8 cup cooked beans	7.0	1 lb AP = about 5-1/8 cups rehydrated, cooked beans when the water to dry beans ratio = 2:1

<sup>2</sup> Dehydrated pinto beans are whole dry beans that have been cooked and then dehydrated.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, RED, SMALL</b>					
<b>Beans, Red, Small, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (111 oz)	31.9	1/4 cup heated, drained beans	3.2	1 No. 10 can = about 71.2 oz (8 cups) heated, drained beans
	No. 10 can (111 oz)	21.2	3/8 cup heated, drained beans	4.8	
	No. 300 can (15-1/2 oz)	4.94	1/4 cup heated, drained beans	20.3	1 No. 300 can = about 8.5 oz (1-1/8 cups) heated, drained beans
	No. 300 can (15-1/2 oz)	3.29	3/8 cup heated, drained beans	30.4	
<b>Beans, Red, Small, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	20.4	1/4 cup cooked beans	5.0	1 lb dry = about 2-1/8 cups dry beans
	Pound	13.6	3/8 cup cooked beans	7.4	
<b>BEANS, SOY</b>					
<b>Beans, Soy, dry, canned</b>	Pound	7.30	1/4 cup heated, drained beans	13.7	
	Pound	4.86	3/8 cup heated, drained beans	20.6	
<b>Beans, Soy, dry</b>	Pound	25.9	1/4 cup cooked beans	3.9	1 lb dry = about 2-1/2 cups dry beans
	Pound	17.2	3/8 cup cooked beans	5.9	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEAN PRODUCTS</b>					
Bean Products, dry beans, canned <b>Beans Baked or in Sauce with Pork</b>	No. 10 can (110 oz)	48.9	1/4 cup heated beans	2.1	
	No. 10 can (110 oz)	32.6	3/8 cup heated beans	3.1	
	No. 2-1/2 can (30 oz)	13.3	1/4 cup heated beans	7.6	
	No. 2-1/2 can (30 oz)	8.86	3/8 cup heated beans	11.3	
	No. 300 can (16 oz)	7.10	1/4 cup heated beans	14.1	
	No. 300 can (16 oz)	4.73	3/8 cup heated beans	21.2	
Bean Products, dry beans, canned <b>Beans Baked in Sauce, Vegetarian</b> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	47.1	1/4 cup heated beans with sauce	2.2	1 No. 10 can = about 11-3/4 cups heated beans with sauce
	No. 10 can (108 oz)	31.4	3/8 cup heated beans with sauce	3.2	
	No. 300 can (16 oz)	6.94	1/4 cup heated beans with sauce	14.5	1 No. 300 can = about 1-3/4 cups heated beans with sauce
	No. 300 can (16 oz)	4.62	3/8 cup heated beans with sauce	21.7	
Bean Products, dry beans, canned <b>Beans with Bacon in Sauce</b>	Pound	4.70	3/8 cup serving (about 1/4 cup heated beans)	21.3	
	Pound	3.13	1/2-cup plus 1 Tbsp serving (about 3/8-cup heated beans)	32.0	
Bean Products, dry beans, canned <b>Beans with Frankfurters in Sauce</b>	Pound	5.30	1/3 cup serving (about 1.0 oz meat/meat alternate)	18.9	
	Pound	3.53	1/2-cup serving (about 1.5 oz meat/meat alternate)	28.4	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### BEAN PRODUCTS<sup>3</sup> (continued)

Bean, Products, dry beans, canned <b>Refried Beans</b> <i>Includes USDA Commodity</i>	No. 10 can (115 oz)	49.6	1/4 cup heated beans	2.1	1 No. 10 can = about 12-1/4 cups heated refried beans
	No. 10 can (115 oz)	33.0	3/8 cup heated beans	3.1	
	No. 300 can (16 oz)	7.08	1/4 cup heated beans	14.2	1 No. 300 can = about 1-3/4 cups heated refried beans
	No. 300 can (16 oz)	4.72	3/8 cup heated beans	21.2	
Bean Products, dehydrated <b>Refried Beans<sup>3</sup></b>	Pound	20.5	1/4 cup cooked beans	4.9	1 lb AP = about 3-1/2 cups dehydrated beans
	Pound	13.6	3/8 cup cooked beans	7.4	1 lb AP = about 5-1/8 cups rehydrated, cooked beans when the water to dry beans ratio = 2:1

### BEAN SOUP, canned

Bean Soup, dry beans, canned <i>Condensed (1 part soup to 1 part water)</i>	No. 3 Cyl (54 oz)	23.0	1/2 cup reconstituted (1/4 cup heated beans)	4.4	Reconstitute 1 part soup with not more than 1 part water
	No. 3 Cyl (54 oz)	15.3	3/4 cup reconstituted (3/8 cup heated beans)	6.6	
	Pound	6.80	1/2 cup reconstituted (1/4 cup heated beans)	14.8	
	Pound	4.53	3/4 cup reconstituted (3/8 cup heated beans)	22.1	
Bean Soup, dry beans, canned <i>Ready-to-Serve</i>	8 oz can	1.00	1 cup serving (1/2 cup heated beans)	100.0	
	8 oz can	0.66	3/4 cup serving (3/8 cup heated beans)	151.6	

## BEEF, FRESH OR FROZEN

### BEEF BRISKET, fresh or frozen

Beef Brisket, fresh or frozen <i>Without bone Practically-free-of-fat</i>	Pound	11.0	1 oz cooked lean meat	9.1	1 lb AP = 0.69 lb cooked, sliced lean meat
	Pound	7.36	1-1/2 oz cooked lean meat	13.6	

<sup>3</sup> Dehydrated refried beans are dry beans that have been cooked, mashed, and then dehydrated.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
BEEF BRISKET, CORNED, chilled					
Beef Brisket, Corned, chilled Without bone 1/4-inch trim	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked, sliced lean meat
	Pound	7.46	1-1/2 oz cooked lean meat	13.5	
BEEF CHEEK MEAT, fresh or frozen					
Beef Cheek Meat, fresh or frozen no more than 25% fat	Pound	12.3	1 oz cooked lean meat	8.2	1 lb AP = 0.77 lb cooked, drained, lean meat
	Pound	8.21	1-1/2 oz cooked lean meat	12.2	
BEEF CHUCK ROAST, fresh or frozen <sup>4, 5</sup>					
Beef Chuck Roast, fresh or frozen <sup>4</sup> With bone Practically-free-of-fat	Pound	8.64	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
	Pound	5.76	1-1/2 oz cooked lean meat	17.4	
Beef Chuck Roast, fresh or frozen <sup>5</sup> Without bone Practically-free-of-fat	Pound	10.0	1 oz lean cooked meat	10.0	1 lb AP = 0.63 lb cooked lean meat
	Pound	6.72	1-1/2 lean cooked meat	14.9	
Beef Chuck Roast, fresh or frozen <sup>5</sup> Eye roll Without bone Practically-free-of-fat (Like IMPS #116D)	Pound	7.20	1 oz cooked lean meat	13.9	1 lb AP = 0.45 lb cooked, trimmed, sliced lean meat
	Pound	4.80	1-1/2 oz cooked lean meat	20.9	
Beef Chuck Roast, fresh or frozen <sup>5</sup> Pectoral meat Without bone Practically-free-of-fat	Pound	7.84	1 oz cooked lean meat	12.8	1 lb AP = 0.49 lb cooked, drained, lean meat
	Pound	5.22	1-1/2 oz cooked lean meat	19.2	

<sup>4</sup>If you do not know the specific cut of beef chuck roast **with** bone you will purchase or have purchased, use the yield data given for “beef chuck roast, fresh or frozen, with bone, practically-free-of-fat” for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.

<sup>5</sup>If you do not know the specific cut of beef chuck roast **without** bone you will purchase or have purchased, use the yield data given for “beef chuck roast, fresh or frozen, without bone, practically-free-of-fat” for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEEF CHUCK ROAST, fresh or frozen<sup>4,5</sup> (continued)</b>					
<b>Beef Chuck Roast, fresh or frozen<sup>5</sup></b> <i>Roll</i> <i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #116A)</i>	Pound	6.56	1 oz cooked lean meat	15.3	1 lb AP = 0.41 lb cooked, trimmed, sliced lean meat
	Pound	4.37	1-1/2 oz cooked lean meat	22.9	
<b>Beef Chuck Roast, fresh or frozen<sup>5</sup></b> <i>Shoulder clod</i> <i>Without bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #114)</i>	Pound	9.76	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked, trimmed, sliced, lean meat
	Pound	6.50	1-1/2 oz cooked lean meat	15.4	
<b>Beef Chuck Roast, fresh or frozen<sup>5</sup></b> <i>Shoulder clod</i> <i>Arm</i> <i>Without bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #114E)</i>	Pound	9.60	1 oz cooked lean meat	10.5	1 lb AP = 0.60 lb cooked, trimmed, sliced, lean meat
	Pound	6.40	1-1/2 oz cooked lean meat	15.7	
<b>Beef Chuck Roast, fresh or frozen<sup>5</sup></b> <i>Shoulder clod</i> <i>Arm</i> <i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #114E)</i>	Pound	9.12	1 oz cooked lean meat	11.0	1 lb AP = 0.57 lb cooked, trimmed, sliced, lean meat
	Pound	6.08	1-1/2 oz cooked lean meat	16.5	
<b>Beef Chuck Roast, fresh or frozen<sup>5</sup></b> <i>Square cut</i> <i>Divided</i> <i>Blade</i> <i>Without bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #113A)</i>	Pound	8.48	1 oz cooked lean meat	11.8	1 lb AP = 0.53 lb cooked, trimmed, sliced, lean meat
	Pound	5.65	1-1/2 oz cooked lean meat	17.7	

<sup>4</sup>If you do not know the specific cut of beef chuck roast **with** bone you will purchase or have purchased, use the yield data given for “beef chuck roast, fresh or frozen, with bone, practically-free-of-fat” for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.

<sup>5</sup>If you do not know the specific cut of beef chuck roast **without** bone you will purchase or have purchased, use the yield data given for “beef chuck roast, fresh or frozen, without bone, practically-free-of-fat” for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
BEEF CHUCK ROAST, fresh or frozen <sup>4, 5</sup> (continued)					
Beef Chuck Roast, fresh or frozen <sup>5</sup> Under blade Without bone 1/4-inch trim (Like IMPS #116E)	Pound	10.2	1 oz cooked lean meat	9.9	1 lb AP = 0.64 lb cooked, trimmed, sliced lean meat
	Pound	6.82	1-1/2 oz cooked lean meat	14.7	
Beef Chuck Roast, fresh or frozen <sup>5</sup> Under blade Without bone Practically-free-of-fat (Like IMPS #116E)	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked, trimmed, sliced, lean meat
	Pound	6.93	1-1/2 oz cooked lean meat	14.5	
BEEF CHUCK STEAK, fresh or frozen					
Beef Chuck Steak, fresh or frozen Eye roll Without bone Practically-free-of-fat (Like IMPS #1116D)	Pound	11.8	1 oz cooked lean meat	8.5	1 lb AP = 0.74 lb cooked lean meat
	Pound	7.89	1-1/2 oz cooked lean meat	12.7	
BEEF FLANK STEAK, fresh or frozen					
Beef Flank Steak, fresh or frozen Practically-free-of-fat	Pound	11.6	1 oz cooked lean meat	8.7	1 lb AP (and sliced) = 0.73 lb cooked lean meat
	Pound	7.78	1-1/2 oz cooked lean meat	12.9	
BEEF GROUND, <sup>6, 7, 8</sup> fresh or frozen					
Beef, Ground, fresh or frozen Market Style <sup>6, 8</sup> no more than 30% fat (Like IMPS #136)	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked, drained, lean meat
	Pound	7.46	1-1/2 oz cooked lean meat	13.5	

<sup>4</sup>If you do not know the specific cut of beef chuck roast **with** bone you will purchase or have purchased, use the yield data given for “beef chuck roast, fresh or frozen, with bone, practically-free-of-fat” for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.

<sup>5</sup>If you do not know the specific cut of beef chuck roast **without** bone you will purchase or have purchased, use the yield data given for “beef chuck roast, fresh or frozen, without bone, practically-free-of-fat” for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.

<sup>6</sup>Ground Beef, Market Style (no more than 30 percent fat) is based on USDA, FSIS standard as published in the Code of Federal Regulations, Title 9, Part 319.15(a) chopped beef, ground beef.

<sup>7</sup>Ground Beef is based on USDA, FSIS standard as published in the Code of Federal Regulations, Title 9, Part 319.15(a) chopped beef, ground beef, but with maximum fat content as listed here.

<sup>8</sup>USDA recommends that the very young, the very old, and those with weakened immune systems not eat undercooked ground beef. To be sure all bacteria are destroyed, cook meat loaf, meat balls, casseroles, hamburgers, and other dishes containing ground beef to the temperature set by your local and State standards and check by using a thermometer.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEEF GROUND fresh or frozen<sup>7, 8</sup> (continued)</b>					
<b>Beef, Ground, fresh or frozen<sup>7, 8</sup></b> <i>no more than 26% fat</i> (Like IMPS #136)	Pound	11.5	1 oz cooked lean meat	8.7	1 lb AP = .72 lb cooked, drained lean meat
	Pound	7.68	1-1/2 oz cooked lean meat	13.1	
<b>Beef, Ground, fresh or frozen<sup>7, 8</sup></b> <i>no more than 24% fat</i> (Like IMPS #136)	Pound	11.6	1 oz cooked lean meat	8.7	1 lb AP = 0.73 lb cooked, drained lean meat
	Pound	7.78	1-1/2 oz cooked lean meat	12.9	
<b>Beef, Ground, fresh or frozen<sup>7, 8</sup></b> <i>no more than 20% fat</i> Includes USDA Commodity (Like IMPS #136)	Pound	11.8	1 oz cooked lean meat	8.5	1 lb AP = 0.74 lb cooked, drained lean meat
	Pound	7.89	1-1/2 oz cooked lean meat	12.7	
<b>Beef, Ground, fresh or frozen<sup>7, 8</sup></b> <i>no more than 15% fat</i> (Like IMPS #136)	Pound	12.0	1 oz cooked lean meat	8.4	1 lb AP = 0.75 lb cooked, drained lean meat
	Pound	8.00	1-1/2 oz cooked lean meat	12.5	
<b>Beef, Ground, fresh or frozen<sup>7, 8</sup></b> <i>no more than 10% fat</i> (Like IMPS #136)	Pound	12.1	1 oz cooked lean meat	8.3	1 lb AP = 0.76 lb cooked, drained lean meat
	Pound	8.10	1-1/2 oz cooked lean meat	12.4	
<b>BEEF HEART, fresh or frozen</b>					
<b>Beef Heart, fresh or frozen</b> <i>Trimmed</i>	Pound	8.96	1 oz cooked lean meat	11.2	1 lb AP = 0.56 lb cooked, trimmed, lean heart
	Pound	5.97	1-1/2 oz cooked lean meat	16.8	
<b>BEEF KIDNEY, fresh or frozen</b>					
<b>Beef Kidney, fresh or frozen</b> <i>Trimmed</i>	Pound	8.64	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked kidney
	Pound	5.76	1-1/2 oz cooked lean meat	17.4	

<sup>7</sup>Ground Beef is based on USDA, FSIS standard as published in the Code of Federal Regulations, Title 9, Part 319.15(a) chopped beef, ground beef, but with maximum fat content as listed here.

<sup>8</sup>USDA recommends that the very young, the very old, and those with weakened immune systems not eat undercooked ground beef. To be sure all bacteria are destroyed, cook meat loaf, meat balls, casseroles, hamburgers, and other dishes containing ground beef to the temperature set by your local and State standards and check by using a thermometer.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
BEEF LIVER, fresh or frozen					
Beef Liver, fresh or frozen Trimmed	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked liver
	Pound	7.46	1-1/2 oz cooked lean meat	13.5	
BEEF LOIN STEAK, fresh or frozen					
Beef Loin Steak, fresh or frozen Bottom sirloin butt Tri-tip steak Defatted Without bone Practically-free-of-fat (Like IMPS #1185D)	Pound	10.8	1 oz cooked lean meat	9.3	1 lb AP = 0.68 lb cooked, trimmed, sliced, lean meat
	Pound	7.25	1-1/2 oz cooked lean meat	13.8	
Beef Loin Steak, fresh or frozen Tenderloin steak Side muscle on Defatted 1/4-inch trim (Like IMPS #1189A)	Pound	12.0	1 oz cooked lean meat	8.4	1 lb AP = 0.75 lb cooked lean meat
	Pound	8.00	1-1/2 oz cooked lean meat	12.5	
BEEF OXTAIL, fresh or frozen					
Beef Oxtail, fresh or frozen Trimmed With bone (Like IMPS #721)	Pound	4.96	1 oz cooked lean meat	20.2	1 lb AP = 0.31 lb cooked, defatted, boned, lean meat
	Pound	3.30	1-1/2 oz cooked lean meat	30.4	
BEEF PLATE, fresh or frozen					
Beef Plate, fresh or frozen Inside skirt steak (Like IMPS #1121D)	Pound	10.2	1 oz cooked lean meat	9.9	1 lb AP = 0.64 lb sliced, cooked lean meat
	Pound	6.82	1-1/2 oz cooked lean meat	14.7	
Beef Plate, fresh or frozen Outside skirt steak Skinned Practically-free-of-fat (Like IMPS #1121E)	Pound	11.3	1 oz cooked lean meat	8.9	1 lb AP = 0.71 lb sliced, cooked lean meat
	Pound	7.57	1-1/2 oz cooked lean meat	13.3	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEEF RIB, RIBEYE, fresh or frozen</b>					
<b>Beef Rib, Ribeye, fresh or frozen</b> <i>Roll roast or steak</i>	Pound	10.0	1 oz cooked lean meat	10.0	1 lb AP = 0.63 lb cooked, trimmed, sliced, lean meat
<i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #112)</i>	Pound	6.72	1-1/2 oz cooked lean meat	14.9	
<b>BEEF RIB ROAST, fresh or frozen</b>					
<b>Beef Rib Roast, fresh or frozen</b> <i>Blade meat</i>	Pound	8.96	1 oz cooked lean meat	11.2	1 lb AP = 0.56 lb cooked, trimmed, sliced, lean meat
<i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #109B)</i>	Pound	5.97	1-1/2 oz cooked lean meat	16.8	
<b>BEEF ROUND ROAST, fresh or frozen<sup>9</sup></b>					
<b>Beef Round Roast, fresh or frozen<sup>9</sup></b> <i>Without bone</i>	Pound	9.76	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked lean meat
<i>1/4-inch trim</i>	Pound	6.50	1-1/2 oz cooked lean meat	15.4	
<b>Beef Round Roast, fresh or frozen<sup>9</sup></b> <i>Bottom (Gooseneck)</i>	Pound	9.28	1 oz cooked lean meat	10.8	1 lb AP = 0.58 lb cooked, trimmed, sliced, lean meat
<i>Heel out</i> <i>Without bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #170A)</i>	Pound	6.18	1-1/2 oz cooked lean meat	16.2	
<b>Beef Round Roast, fresh or frozen<sup>9</sup></b> <i>Eye of round</i>	Pound	9.44	1 oz cooked lean meat	10.6	1 lb AP = 0.59 lb cooked, sliced, lean meat
<i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #171C)</i>	Pound	6.29	1-1/2 oz cooked lean meat	15.9	
<b>Beef Round Roast, fresh or frozen<sup>9</sup></b> <i>Knuckle</i>	Pound	9.60	1 oz cooked lean meat	10.5	1 lb AP = 0.60 lb cooked, trimmed, sliced, lean meat
<i>Peeled</i> <i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #167A)</i>	Pound	6.40	1-1/2 oz cooked lean meat	15.7	

<sup>9</sup>If you do not know the specific cut of beef round roast without bone you will purchase or have purchased, use the yield data given for "beef round roast, fresh or frozen, without bone, 1/4-inch trim" for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
BEEF ROUND ROAST, fresh or frozen <sup>9</sup> (continued)					
Beef Round Roast, fresh or frozen <sup>9</sup> Outside Without bone 1/4-inch trim (Like IMPS #171B)	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked, trimmed, sliced, lean meat
	Pound	6.93	1-1/2 oz cooked lean meat	14.5	
Beef Round Roast, fresh or frozen <sup>9</sup> Outside Without bone Practically-free-of-fat (Like IMPS #171B)	Pound	10.0	1 oz cooked lean meat	10.0	1 lb AP = 0.63 lb cooked, sliced, lean meat
	Pound	6.72	1-1/2 oz cooked lean meat	14.9	
Beef Round Roast, fresh or frozen <sup>9</sup> Top (Inside) Without bone (Like IMPS #169)	Pound	10.0	1 oz cooked lean meat	10.0	1 lb AP = 0.63 lb cooked, trimmed, sliced, lean meat
	Pound	6.72	1-1/2 oz cooked lean meat	14.9	
Beef Round Roast, fresh or frozen <sup>9</sup> Top (Inside, Cap off) Without bone (Like IMPS #169A)	Pound	10.7	1 oz cooked lean meat	9.4	1 lb AP = 0.67 lb cooked, sliced, lean meat
	Pound	7.14	1-1/2 oz cooked lean meat	14.1	
BEEF ROUND STEAK, fresh or frozen					
Beef Round Steak, fresh or frozen Bottom (Gooseneck) Without bone (Like IMPS #1170A)	Pound	11.0	1 oz cooked lean meat	9.1	1 lb AP = 0.69 lb cooked lean meat
	Pound	7.36	1-1/2 oz cooked lean meat	13.6	
Beef Round Steak, fresh or frozen Knuckle Peeled Without bone (Like IMPS #1167A)	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked lean meat
	Pound	6.93	1-1/2 oz cooked lean meat	14.5	

<sup>9</sup>If you do not know the specific cut of beef round roast without bone you will purchase or have purchased, use the yield data given for “beef round roast, fresh or frozen, without bone, 1/4-inch trim” for a general purchasing yield. If possible, it is best to know the specific cut of meat you are purchasing and use the appropriate yield data that more accurately reflects the number of servings obtained for that particular cut of meat.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEEF ROUND STEAK, fresh or frozen (continued)</b>					
<b>Beef Round Steak, fresh or frozen</b> <i>Top (Inside)</i> <i>Without bone</i> <i>(Like IMPS #1169)</i>	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked, trimmed, sliced, lean meat
	Pound	7.46	1-1/2 oz cooked lean meat	13.5	
<b>Beef Round Steak, fresh or frozen</b> <i>Whole</i> <i>With bone</i> <i>Practically-free-of-fat</i>	Pound	10.0	1 oz lean cooked meat	10.0	1 lb AP = 0.63 lb cooked lean meat
	Pound	6.72	1-1/2 oz lean cooked meat	14.9	
<b>BEEF RUMP ROAST, fresh or frozen</b>					
<b>Beef Rump Roast, fresh or frozen</b> <i>With bone</i>	Pound	9.92	1 oz lean cooked meat	10.1	1 lb AP = 0.62 lb cooked lean meat
	Pound	6.61	1-1/2 oz lean cooked meat	15.2	
<b>Beef Rump Roast, fresh or frozen</b> <i>Without bone</i>	Pound	10.8	1 oz cooked lean meat	9.3	1 lb AP = 0.68 lb cooked lean meat
	Pound	7.25	1-1/2 oz cooked lean meat	13.8	
<b>BEEF SPECIAL TRIM, fresh or frozen<sup>10</sup></b>					
<b>Beef Special Trim,<sup>10</sup> fresh or frozen</b> <i>Without Bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #139)</i>	Pound	9.12	1 oz cooked lean meat	11.0	1 lb AP = 0.57 lb cooked, sliced, lean meat
	Pound	6.08	1-1/2 oz cooked lean meat	16.5	
<b>BEEF, STEAK, frozen</b>					
<b>Beef Steak, frozen</b> <i>Cubed Steak</i> <i>(Like IMPS #1100)</i>	Pound	3.55	One 4.5 oz raw steak when cooked provides 3 oz lean cooked meat	28.2	1 lb AP = 0.67 lb cooked lean meat
	Pound	5.33	One 3.0 oz raw steak when cooked provides 2 oz lean cooked meat	18.8	
	Pound	10.7	1 oz cooked lean meat	9.4	
	Pound	7.14	1-1/2 oz cooked lean meat	14.1	

<sup>10</sup> "Beef Special Trim" is beef trimmings where each piece has a surface area on one side not less than 8 square inches and no less than 1/2-inch thick at any point.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEEF, STEAK, frozen (continued)</b>					
<b>Beef Steak, frozen</b> <i>Sandwich Steak Flaked, Chopped, Formed and Wafer sliced (Like IMPS #1138A)</i>	Pound	9.92	1 oz cooked lean meat	10.1	1 lb AP = 0.62 lb cooked lean meat
	Pound	6.61	1-1/2 oz cooked lean meat	15.2	
<b>Beef Steak, frozen</b> <i>Flaked and Formed Sliced (Like IMPS #1138)</i>	Pound	12.6	1 oz cooked lean meat	8.0	1 lb AP = 0.79 lb cooked lean meat
	Pound	8.42	1-1/2 oz cooked lean meat	11.9	
<b>Beef Steak, frozen</b> <i>Sliced and Formed (Like IMPS #1138B)</i>	Pound	10.7	1 oz cooked lean meat	9.4	1 lb AP = 0.67 lb cooked lean meat
	Pound	7.14	1-1/2 oz cooked lean meat	14.1	
<b>BEEF STEW MEAT, fresh or frozen</b>					
<b>Beef Stew Meat, fresh or frozen</b> <i>Practically-free-of-fat</i>	Pound	9.76	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked lean meat
	Pound	6.50	1-1/2 oz cooked lean meat	15.4	
<b>BEEF TONGUE, fresh or frozen</b>					
<b>Beef Tongue, fresh or frozen</b>	Pound	9.28	1 oz cooked lean meat	10.8	1 lb AP = 0.58 lb cooked tongue
	Pound	6.18	1-1/2 oz cooked lean meat	16.2	
<b>BEEF TRIPE, fresh or frozen</b>					
<b>Beef Tripe, fresh or frozen</b> <i>Scalded, Bleached, (Denuded) Honeycomb (Like IMPS #726)</i>	Pound	12.3	1 oz cooked lean meat	8.2	1 lb AP thawed = 0.77 lb cooked lean meat
	Pound	8.21	1-1/2 oz cooked lean meat	12.2	

## Section 1—Meat/Meat Alternates

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### BEEF, COOKED

#### BEEF, canned<sup>11</sup>

Beef, canned <i>Beef with Natural Juices</i> <i>USDA Commodity</i> <sup>11</sup>	No. 2-1/2 can (29 oz)	14.7	1 oz heated lean meat	6.9	1 lb AP = 0.51 lb heated meat
	No. 2-1/2 can (29 oz)	9.86	1-1/2 oz heated lean meat	10.2	
	Pound	8.16	1 oz heated lean meat	12.3	
	Pound	5.44	1-1/2 oz heated lean meat	18.4	

#### BEEF PRODUCTS, canned or frozen<sup>12, 13</sup>

Beef Products <b>Barbecue Sauce with Beef</b> <sup>12, 13</sup>	Pound	3.50	1/2 cup serving (about 1 oz cooked lean meat)	28.6	1 lb AP = 0.25 lb cooked lean meat
Beef Products <b>Beef and Dumplings with Gravy</b> <sup>12, 13</sup>	Pound	2.33	3/4 cup serving (about 1 oz cooked lean meat)	43.0	1 lb AP = 0.18 lb cooked lean meat
Beef Products <b>Beef Goulash</b> <sup>12, 13</sup>	Pound	2.33	3/4 cup serving (about 1 oz cooked lean meat)	43.0	1 lb AP = 0.18 lb cooked lean meat
Beef Products <b>Beef Hash</b> <sup>12, 13</sup>	Pound	4.66	3/8 cup serving (about 1 oz cooked lean meat)	21.5	1 lb AP = 0.35 lb cooked lean meat
Beef Products <b>Beef Salad</b> <sup>12, 13</sup>	Pound	4.66	3/8 cup serving (about 1 oz cooked lean meat)	21.5	1 lb AP = 0.35 lb cooked lean meat
Beef Products <b>Beef Stew</b> <sup>12, 13</sup>	Pound	2.33	3/4 cup serving (about 1 oz cooked lean meat)	43.0	1 lb AP = 0.18 lb cooked lean meat
Beef Products <b>Beef Taco Filling</b> <sup>12, 13</sup>	Pound	3.50	1/2 cup serving (about 1 oz cooked lean meat)	28.6	1 lb AP = 0.28 lb cooked lean meat
Beef Products <b>Beef with Barbecue Sauce</b> <sup>12, 13</sup>	Pound	7.00	1/4 cup serving (about 1 oz cooked lean meat)	14.3	1 lb AP = 0.50 lb cooked lean meat
Beef Products <b>Beef and Gravy</b> <sup>12, 13</sup>	Pound	7.00	1/4 cup serving (about 1 oz cooked lean meat)	14.3	1 lb AP = 0.50 lb cooked lean meat

<sup>11</sup> Based on USDA specification for beef with natural juices, canned.

<sup>12</sup> Yield data is based on the *Food Buying Guide* yield for raw beef stew meat, practically-free-of-fat.

<sup>13</sup> Purchasers of these products will need to ensure that the name of the food on the product label exactly matches the "As Purchased" description in Column 1.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEEF PRODUCTS, canned or frozen<sup>12, 13</sup> (continued)</b>					
Beef Products <b>Chili con Carne<sup>12, 13</sup></b>	Pound	3.50	1/2 cup serving (about 1 oz cooked lean meat)	28.6	1 lb AP = 0.28 lb cooked lean meat
Beef Products <b>Chili con Carne with Beans<sup>12, 13</sup></b>	Pound	2.33	3/4 cup serving (about 1 oz cooked lean meat)	43.0	1 lb AP = 0.18 lb cooked lean meat
Beef Products <b>Corned Beef and Cabbage<sup>12, 13</sup></b>	Pound	3.50	1/2 cup serving (about 1 oz cooked lean meat)	28.6	1 lb AP = 0.25 lb cooked lean meat
Beef Products <b>Corned Beef Hash<sup>12, 13</sup></b>	Pound	4.66	3/8 cup serving (about 1 oz cooked lean meat)	21.5	1 lb AP = 0.35 lb cooked lean meat
Beef Products <b>Gravy and Beef<sup>12, 13</sup></b>	Pound	3.50	1/2 cup serving (about 1 oz cooked lean meat)	28.6	1 lb AP = 0.25 lb cooked lean meat
Beef Products <b>Gravy and Swiss Steak<sup>12, 13</sup></b>	Pound	4.66	3/8 cup serving (about 1 oz cooked lean meat)	21.5	1 lb AP = 0.35 lb cooked lean meat
Beef Products <b>Swiss Steak and Gravy<sup>12, 13</sup></b>	Pound	7.00	1/4 cup serving (about 1 oz cooked lean meat)	14.3	1 lb AP = 0.50 lb cooked lean meat
<b>CHEESE (includes reduced fat, lowfat, nonfat, and lite versions of cheese, cheese food, and cheese spread)<sup>14, 15</sup></b>					
Cheese <b>American, Cheddar, Mozzarella, or Swiss<sup>14</sup></b> <i>Natural or Process Includes USDA Commodity</i>	Pound	16.0	1 oz cheese	6.3	1 lb = about 4 cups shredded cheese
	Pound	10.6	1-1/2 oz cheese	9.5	1 lb AP = about 2 cups cubed cheese
Cheese <b>Feta, Brie, Camembert<sup>14, 15</sup></b> <i>Natural</i>	Pound	16.0	1 oz cheese	6.3	
	Pound	10.6	1-1/2 oz cheese	9.5	

<sup>12</sup> Yield data is based on the *Food Buying Guide* yield for raw beef stew meat, practically-free-of-fat.

<sup>13</sup> Purchasers of these products will need to ensure that the name of the food on the product label exactly matches the "As Purchased" description in Column 1.

<sup>14</sup> Any item labeled with the wording "imitation" cheese or cheese "product" does not meet the requirements for use in food-based menu planning approaches and are **not creditable** towards meal pattern requirements.

<sup>15</sup> Due to increased number of illnesses associated with *Listeria monocytogenes*, the Food and Drug Administration has advised pregnant women, the elderly, and persons with weakened immune systems to not eat soft cheese such as Feta, Brie, and Camembert cheeses, blue-veined cheeses, and Mexican-style cheese such as "queso blanco fresco."



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### CHEESE (includes reduced fat, lowfat, nonfat, and lite versions of cheese, cheese food, and cheese spread)<sup>14</sup> (continued)

Cheese <b>Cottage or Ricotta</b> <sup>14</sup>	Pound	8.00	2 oz serving - about 1/4 cup (1 oz meat alternate)	12.5	1 lb = about 2 cups
	Pound	5.33	3 oz serving - about 3/8 cup (1-1/2 oz meat alternate)	18.8	
Cheese <b>Parmesan or Romano</b> <sup>14</sup> <i>Grated</i>	Pound	16.0	1 oz cheese (3/8 cup serving)	6.3	1 lb = about 5-2/3 cups grated
	Pound	10.6	1-1/2 oz cheese (5/8 cup serving)	9.5	
Cheese <b>Cheese food</b> <sup>14</sup> <i>Process</i>	Pound	8.00	2 oz serving (1 oz meat alternate)	12.5	
	Pound	5.33	3 oz serving (1-1/2 oz meat alternate)	18.8	
Cheese <b>Cheese spread</b> <sup>14</sup> <i>Process</i>	Pound	8.00	2 oz serving (1 oz meat alternate)	12.5	
	Pound	5.30	3 oz serving (1-1/2 oz meat alternate)	18.8	

### CHEESE SUBSTITUTES (includes reduced fat, lowfat, nonfat, and lite versions of cheese substitute, cheese food substitute, and cheese spread substitute)<sup>14, 16</sup>

Cheese Substitutes <b>American, Cheddar, Mozzarella, or Swiss Cheese Substitute</b> <sup>14, 16</sup> <i>Natural or Process</i>	Pound	16.0	1 oz cheese substitute	6.3	1 lb = about 4 cups shredded
	Pound	10.6	1-1/2 oz cheese substitute	9.5	1 lb AP = about 2 cups cubed cheese
Cheese Substitutes <b>Parmesan or Romano cheese substitute</b> <sup>14, 16</sup> <i>Grated</i>	Pound	16.0	1 oz cheese substitute (3/8 cup serving)	6.3	1 lb = about 5-2/3 cup
	Pound	10.6	1-1/2 oz cheese substitute (5/8 cup serving)	9.5	

<sup>14</sup> Any item labeled with the wording "imitation" cheese or cheese "product" does not meet the requirements for use in food-based menu planning approaches and are not creditable towards meal pattern requirements.

<sup>16</sup> "Cheese Substitute," "cheese food substitute," and "cheese spread substitute" must meet the FDA standard of identity for substitute foods and be labeled as "\_\_\_\_\_ Cheese Substitute," "cheese food substitute," or "cheese spread substitute." The standard requires that a "cheese substitute" is not nutritionally inferior to the standardized cheese for which it is substituting.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### CHEESE SUBSTITUTES (includes reduced fat, lowfat, nonfat, and lite versions of cheese substitute, cheese food substitute, and cheese spread substitute)<sup>14, 16</sup> (continued)

Cheese Substitutes <b>Cheese food Substitute</b> <sup>14, 16</sup> Process	Pound	8.00	2 oz serving (1 oz meat alternate)	12.5	1 lb = about 5-2/3 cup
	Pound	5.33	3 oz serving (1-1/2 oz meat alternate)	18.8	
Cheese Substitutes <b>Cheese spread substitute</b> <sup>14, 16</sup> Process	Pound	8.00	2 oz serving (1 oz meat alternate)	12.5	1 lb = about 5-2/3 cup
	Pound	5.33	3 oz serving (1-1/2 oz meat alternate)	18.8	

## CHICKEN, FRESH OR FROZEN

### CHICKEN, WHOLE, fresh or frozen

Chicken, Whole, fresh or frozen <i>With neck and giblets</i>	Pound	5.76	1 oz cooked poultry excluding neck meat and giblets	17.4	1 lb AP = 0.36 lb cooked, boned, chicken meat without skin, excluding neck meat and giblets
	Pound	3.84	1-1/2 oz cooked poultry excluding neck meat and giblets	26.1	
	Pound	6.56	1 oz cooked poultry with neck meat and giblets	15.3	1 lb AP = 0.41 lb cooked, boned, chicken meat without skin, with neck meat and giblets
	Pound	4.37	1-1/2 oz cooked poultry with neck meat and giblets	22.9	

<sup>14</sup> Any item labeled with the wording "imitation" cheese or cheese "product" does not meet the requirements for use in food-based menu planning approaches and is **not creditable** towards meal pattern requirements.

<sup>16</sup> "Cheese Substitute," "cheese food substitute," and "cheese spread substitute" must meet the FDA Standard of Identity for substitute foods and be labeled as "\_\_\_\_\_ Cheese Substitute," "cheese food substitute," or "cheese spread substitute." The standard requires that a "cheese substitute" not be nutritionally inferior to the standardized cheese for which it is substituting.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### CHICKEN, WHOLE, fresh or frozen (continued)

<b>Chicken, Whole, fresh or frozen</b> <i>Without neck and giblets</i>	Pound	7.04	1 oz cooked poultry with skin	14.3	1 lb AP = 0.44 lb cooked, boned, chicken meat with skin
	Pound	4.69	1-1/2 oz cooked poultry with skin	21.4	1 lb AP = 0.36 lb cooked, boned, chicken meat without skin
	Pound	5.76	1 oz cooked poultry without skin	17.4	
	Pound	3.84	1-1/2 oz cooked poultry without skin	26.1	
<b>Chicken, Whole, fresh or frozen</b> <i>Cut up</i> <i>8 Pieces</i> <i>(about 2-3/4 lb without neck and giblets)</i> <i>USDA Commodity</i>  <i>Chicken pieces:</i> <i>2 breast pieces</i> <i>2 drumsticks</i> <i>2 thighs with back</i> <i>2 wings</i>	40 lb box (frying chicken)	(about 83)	2 oz or more cooked poultry with skin (1 serving = 1 breast piece, or 1 drumstick and 1 wing, or 1 thigh with back)	(about 1.3)	1 box contains about 14 chickens weighing 2-1/2 to 3-1/4 lb

### CHICKEN PARTS, fresh or frozen<sup>17</sup>

<b>Chicken Parts, fresh or frozen</b> <b>Back<sup>17</sup></b> <i>Pieces</i> <i>With skin</i> <i>(about 6.0 oz each)</i>	Pound	2.66	1 back piece (about 1.9 oz cooked poultry with skin)	37.6	1 lb AP = 0.32 lb cooked, boned, chicken meat with skin
	Pound	2.66	1 back piece (about 1.4 oz cooked poultry without skin)	37.6	1 lb AP = 0.24 lb cooked, boned, chicken meat without skin
	Pound	5.12	1 oz cooked poultry with skin	19.6	
	Pound	3.84	1 oz cooked poultry without skin	26.1	
	Pound	3.41	1-1/2 oz cooked poultry with skin	29.4	
	Pound	2.56	1-1/2 oz cooked poultry without skin	39.1	

<sup>17</sup> If the average raw weights of the chicken parts are different from those stated, use the yield information in Column 6 to determine cooked weight.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN PARTS, fresh or frozen<sup>17</sup> (continued)</b>					
Chicken Parts, fresh or frozen <b>Breast<sup>17</sup></b> <i>Halves with Backs</i> <i>With skin</i> <i>(about 7.5 oz each)</i> <i>from 8 piece cut</i>	Pound	2.13	1 breast half with back (about 4.1 oz cooked poultry with skin)	47.0	1 lb AP = 0.55 lb cooked, boned, chicken meat with skin
	Pound	2.13	1 breast half with back (about 3.5 oz cooked poultry without skin)	47.0	1 lb AP = 0.47 lb cooked, boned, chicken meat without skin
	Pound	8.80	1 oz cooked poultry with skin	11.4	
	Pound	7.52	1 oz cooked poultry without skin	13.3	
	Pound	5.86	1-1/2 oz cooked poultry with skin	17.1	
	Pound	5.01	1-1/2 oz cooked poultry without skin	20.0	
Chicken Parts, fresh or frozen <b>Breast<sup>17</sup></b> <i>Halves with Ribs</i> <i>With skin</i> <i>(about 6.1 oz each)</i>	Pound	2.62	1 breast half (about 4.0 oz cooked poultry with skin)	38.2	1 lb AP = 0.66 lb cooked, boned, chicken meat with skin
	Pound	2.62	1 breast half (about 3.4 oz cooked poultry without skin)	38.2	1 lb AP = 0.56 lb cooked, boned, chicken meat without skin
	Pound	10.5	1 oz cooked poultry with skin	9.6	
	Pound	8.96	1 oz cooked poultry without skin	11.2	
	Pound	7.04	1-1/2 oz cooked poultry with skin	14.3	
	Pound	5.97	1-1/2 oz cooked poultry without skin	16.8	

<sup>17</sup> If the average raw weights of the chicken parts are different from those stated, use the yield information in Column 6 to determine cooked weight.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN PARTS, fresh or frozen<sup>17</sup> (continued)</b>					
Chicken Parts, fresh or frozen <b>Breast<sup>17</sup></b> <i>Portions without Backs With skin (about 3.9 oz each) from 9 piece cut</i>	Pound	4.10	1 breast portion without back (about 2.4 oz cooked poultry with skin)	24.4	1 lb AP = 0.64 lb cooked, boned, chicken meat with skin
	Pound	4.10	1 breast portion without back (about 2.0 oz cooked poultry without skin)	24.4	1 lb AP = 0.52 lb cooked, boned, chicken meat without skin
	Pound	10.2	1 oz cooked poultry with skin	9.9	
	Pound	8.32	1 oz cooked poultry without skin	12.1	
	Pound	6.82	1-1/2 oz cooked poultry with skin	14.7	
	Pound	5.54	1-1/2 oz cooked poultry without skin	18.1	
Chicken Parts, fresh or frozen <b>Breast<sup>17</sup></b> <i>Portions with Backs With skin (about 5.9 oz each) from 9 piece cut</i>	Pound	2.71	1 breast portion with back (about 2.8 oz cooked poultry with skin)	37.0	1 lb AP = 0.48 lb cooked, boned, chicken meat with skin
	Pound	2.71	1 breast portion with back (about 2.3 oz cooked poultry without skin)	37.0	1 lb AP = 0.40 lb cooked, boned, chicken meat without skin
	Pound	7.68	1 oz cooked poultry with skin	13.1	
	Pound	6.40	1 oz cooked poultry without skin	15.7	
	Pound	5.12	1-1/2 oz cooked poultry with skin	19.6	
	Pound	4.26	1-1/2 oz cooked poultry without skin	23.5	

<sup>17</sup> If the average raw weights of the chicken parts are different from those stated, use the yield information in Column 6 to determine cooked weight.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN PARTS, fresh or frozen<sup>17</sup> (continued)</b>					
Chicken Parts, fresh or frozen <b>Drumsticks<sup>17</sup></b> <i>With bone</i> <i>With Skin</i> <i>(about 3.7 oz each)</i>	Pound	4.32	1 drumstick (about 1.8 oz cooked chicken with skin)	23.2	1 lb AP = 0.49 lb cooked, boned, chicken meat with skin
	Pound	4.32	1 drumstick (about 1.5 oz cooked chicken without skin)	23.2	1 lb AP = 0.41 lb cooked, boned, chicken meat without skin
	Pound	7.84	1 oz cooked poultry with skin	12.8	
	Pound	6.56	1 oz cooked poultry without skin	15.3	
	Pound	5.22	1-1/2 oz cooked poultry with skin	19.2	
	Pound	4.37	1-1/2 oz cooked poultry without skin	22.9	
Chicken Parts, fresh or frozen <b>Drumsticks<sup>17</sup></b> <i>With bone</i> <i>Without skin</i> <i>(about 2.5 oz each)</i>	Pound	6.40	1 drumstick (1.1 oz cooked poultry meat)	15.7	1 lb AP = 0.47 lb cooked, boned, chicken meat
	Pound	7.52	1 oz cooked poultry meat	13.3	
	Pound	5.01	1-1/2 oz cooked poultry meat	20.0	
Chicken Parts, fresh or frozen <b>Leg Quarters<sup>17</sup></b> <i>With bone</i> <i>Without skin</i> <i>(about 7.0 oz each)</i>	Pound	2.28	1 leg quarter (3.1 oz cooked poultry meat)	43.9	1 lb AP = 0.45 lb cooked, boned, chicken meat
	Pound	7.20	1 oz cooked poultry meat	13.9	
	Pound	4.80	1-1/2 oz cooked poultry meat	20.9	
Chicken Parts, fresh or frozen <b>Leg Quarters<sup>17</sup></b> <i>With bone</i> <i>With Skin</i> <i>(9.5 oz each)</i>	Pound	1.68	1 leg quarter (3.9 oz cooked poultry with skin)	59.6	1 lb AP = 0.42 lb cooked, boned, chicken meat with skin
	Pound	6.72	1 oz cooked poultry with skin	14.9	
	Pound	4.48	1-1/2 oz cooked poultry with skin	22.4	

<sup>17</sup> If the average raw weights of the chicken parts are different from those stated, use the yield information in Column 6 to determine cooked weight.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN PARTS, fresh or frozen<sup>17</sup> (continued)</b>					
Chicken Parts, fresh or frozen <b>Thighs<sup>17</sup></b> <i>With backs</i> <i>With bone</i> <i>With skin</i> <i>(about 8.7 oz each)</i>	Pound	1.83	1 thigh with back (about 3.6 oz cooked poultry with skin)	54.7	1 lb AP = 0.42 lb cooked, boned, chicken meat with skin
	Pound	1.83	1 thigh with back (about 2.8 oz cooked poultry without skin)	54.7	1 lb AP = 0.33 lb cooked, boned, chicken meat without skin
	Pound	6.72	1 oz cooked poultry with skin	14.9	
	Pound	5.28	1 oz cooked poultry without skin	19.0	
	Pound	4.48	1-1/2 oz cooked poultry with skin	22.4	
	Pound	3.52	1-1/2 oz cooked poultry without skin	28.5	
Chicken Parts, fresh or frozen <b>Thigh<sup>17</sup></b> <i>With bone</i> <i>With skin</i> <i>(about 4.0 oz each)</i>	Pound	4.00	1 thigh (about 2.0 oz cooked poultry with skin)	25.0	1 lb AP = 0.52 lb cooked, boned, chicken meat with skin
	Pound	4.00	1 thigh (about 1.7 oz cooked poultry without skin)	25.0	1 lb AP = 0.43 lb cooked, boned, chicken meat without skin
	Pound	8.32	1 oz cooked poultry with skin	12.1	
	Pound	6.88	1 oz cooked poultry without skin	14.6	
	Pound	5.54	1-1/2 oz cooked poultry with skin	18.1	
	Pound	4.58	1-1/2 oz cooked poultry without skin	21.9	
Chicken Parts, fresh or frozen <b>Thighs<sup>17</sup></b> <i>With bone</i> <i>Without skin</i> <i>(about 2.8 oz each)</i>	Pound	5.71	1 thigh (about 1.4 oz cooked poultry)	17.6	1 lb AP thawed = 0.53 lb cooked, boned, chicken meat
	Pound	8.48	1 oz cooked poultry	11.8	
	Pound	5.65	1-1/2 oz cooked poultry	17.7	

<sup>17</sup> If the average raw weights of the chicken parts are different from those stated, use the yield information in Column 6 to determine cooked weight.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN PARTS, fresh or frozen<sup>17</sup> (continued)</b>					
Chicken Parts, fresh or frozen <b>Wings<sup>17</sup></b> <i>Whole</i>	Pound	5.16	1 wing (about 1.0 oz cooked poultry with skin)	19.4	1 lb AP = 0.34 lb cooked, boned, chicken meat with skin
<i>With bone</i>	Pound	5.16	1 wing (about 0.8 oz cooked poultry without skin)	19.4	1 lb AP = 0.26 lb cooked, boned, chicken meat without skin
<i>With skin</i>	Pound	5.44	1 oz cooked poultry with skin	18.4	
<i>(about 3.1 oz each)</i>	Pound	4.16	1 oz cooked poultry without skin	24.1	
	Pound	3.62	1-1/2 oz cooked poultry with skin	27.7	
	Pound	2.77	1-1/2 oz cooked poultry without skin	36.2	
Chicken Parts, fresh or frozen <b>Wing Drumettes</b> <i>(First section of wing)</i>	Pound	5.76	1 oz cooked poultry with skin	17.4	1 lb AP = 0.36 lb cooked, boned, chicken meat with skin
<i>With bone</i>	Pound	3.84	1-1/2 oz cooked poultry with skin	26.1	
<i>With skin</i>					
Chicken Parts, fresh or frozen <b>Wing Portions</b> <i>(Two sections of wing without tip)</i>	Pound	3.84	1 oz cooked poultry without skin	26.1	1 lb AP = 0.24 lb cooked, boned, chicken meat without skin
<i>With bone</i>	Pound	2.56	1-1/2 oz cooked poultry without skin	39.1	
<i>With skin</i>					
<b>CHICKEN, BONELESS, fresh or frozen</b>					
<b>Chicken, Boneless, fresh or frozen</b> <i>With skin in natural proportions</i>	Pound	11.2	1 oz cooked poultry with skin	9.0	1 lb AP = 0.70 lb cooked chicken meat with skin
	Pound	7.46	1-1/2 oz cooked poultry with skin	13.5	

<sup>17</sup> If the average raw weights of the chicken parts are different from those stated, use the yield information in Column 6 to determine cooked weight.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN, BONELESS, fresh or frozen (continued)</b>					
Chicken Boneless, fresh or frozen	Pound	11.6	1 oz cooked poultry	8.7	1 lb AP = 0.73 lb cooked chicken meat
<b>Tenders</b>					
<i>Tenderloins (boneless, chicken breast pieces without skin)</i>	Pound	7.78	1-1/2 oz cooked poultry	12.9	
<b>CHICKEN GIBLETS, fresh or frozen</b>					
Chicken GIBLETS, fresh or frozen	Pound	9.28	1 oz cooked poultry	10.8	1 lb AP = 0.58 lb cooked gizzards
<b>Gizzards</b>	Pound	6.18	1-1/2 oz cooked poultry	16.2	
Chicken GIBLETS, fresh or frozen	Pound	9.28	1 oz cooked poultry	10.8	1 lb AP = 0.58 lb cooked hearts
<b>Hearts</b>	Pound	6.18	1-1/2 oz cooked poultry	16.2	
Chicken GIBLETS, fresh or frozen	Pound	9.92	1 oz cooked poultry	10.1	1 lb AP = 0.62 lb cooked livers
<b>Livers</b>	Pound	6.61	1-1/2 oz cooked poultry	15.2	
<b>CHICKEN, GROUND, frozen</b>					
<b>Chicken, Ground, frozen</b>	Pound	11.2	1 oz cooked poultry	9.0	1 lb = 0.70 cooked chicken meat with skin
<i>With skin in natural proportions</i>	Pound	7.46	1-1/2 oz cooked poultry	13.5	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### CHICKEN, COOKED

#### CHICKEN, canned

<b>Chicken, canned</b> <i>Boned poultry with broth</i>	No. 2-1/2 can (29 oz)	20.8	1 oz heated, drained poultry	4.9	1 No. 2-1/2 can = about 20.8 oz heated, drained chicken meat and skin
	No. 2-1/2 can (29 oz)	13.8	1-1/2 oz heated, drained poultry	7.3	
	No. 2-1/2 can (29 oz)	20.8	1.2 oz unheated, drained chicken (1 oz cooked poultry)	4.9	
	No. 2-1/2 can (29 oz)	13.8	1.8 oz unheated, drained chicken (1-1/2 oz cooked poultry)	7.3	
	Pound	11.5	1 oz heated, drained poultry	8.7	
	Pound	7.66	1-1/2 oz heated, drained poultry	13.1	
	Pound	11.5	1.2 oz unheated, drained chicken (1 oz cooked poultry)	8.7	
	Pound	7.66	1.8 oz unheated, drained chicken (1-1/2 oz cooked poultry)	13.1	
<b>Chicken, canned</b> <i>Boned Solid pack</i>	Pound	14.8	1/8 cup serving (about 1 oz cooked, drained poultry with skin)	6.8	1 lb AP = 0.93 lb cooked chicken meat with skin

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN, canned<sup>18</sup> (continued)</b>					
<b>Chicken, canned Boned</b> <i>Includes USDA Commodity<sup>18</sup></i>	50 oz can	46.5	1 oz heated, drained poultry	2.2	50 oz can = about 46.5 oz heated, drained chicken meat with skin
	50 oz can	31.0	1-1/2 oz heated, drained poultry	3.3	
	No. 2-1/2 can (29 oz)	26.3	1 oz heated poultry	3.9	1 No. 2-1/2 can = about 26.3 oz heated, drained chicken meat with skin
	No. 2-1/2 can (29 oz)	17.5	1-1/2 oz heated poultry	5.8	
	Pound	14.7	1 oz heated poultry	6.9	1 lb AP = 0.92 lb heated, drained chicken meat with skin
	Pound	9.81	1-1/2 oz heated poultry	10.2	
<b>CHICKEN, COOKED, frozen</b>					
Chicken, cooked, frozen <b>Diced or Pulled</b> <i>no skin, wing meat, neck meat, giblets, or kidneys</i> <i>Includes USDA Commodity</i>	Pound	16.0	1 oz cooked poultry	6.3	1 lb AP = 1.0 lb cooked chicken meat
	Pound	10.6	1-1/2 oz cooked poultry	9.5	
	40 lb pkg	640.0	1 oz cooked poultry	0.16	
	40 lb pkg	426.6	1-1/2 oz cooked poultry	0.24	
Chicken, cooked, frozen <b>Whole, Cut up, Breaded</b> 8 Pieces Breaded (about 2-3/4 lb without neck and giblets) <i>USDA Commodity</i>  Chicken pieces: 2 breast pieces, 2 drumsticks 2 thighs with back 2 wings	30 lb box (pre-cooked breaded)	(about 66)	2 oz or more cooked poultry with skin (1 serving = 1 breast piece, or 1 drumstick and 1 wing, or 1 thigh with back)	(about 1.6)	1 box contains about 10 chickens weighing 2-1/2 to 3-3/4 lb

<sup>18</sup> Based on USDA Specification for Canned Boned Poultry.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHICKEN PRODUCTS, canned or frozen<sup>19, 20</sup></b>					
Chicken Products <b>Chicken a La King<sup>19, 20</sup></b>	Pound	2.30	3/4-cup serving (about 1.3 oz cooked poultry)	43.5	1 lb AP = 0.20 lb cooked chicken meat with skin
Chicken Products <b>Chicken Barbeque, Minced<sup>19, 20</sup></b>	Pound	3.50	1/2-cup serving (about 1.8 oz cooked poultry)	28.6	1 lb AP = 0.40 lb cooked chicken meat with skin
Chicken Products <b>Chicken Chili<sup>19, 20</sup></b>	Pound	2.30	3/4-cup serving (about 1.9 oz cooked poultry)	43.5	1 lb AP = 0.28 lb cooked chicken meat with skin
Chicken Products <b>Chicken Chili with Beans<sup>19, 20</sup></b>	Pound	2.62	2/3-cup serving (about 1.0 oz cooked meat)	38.2	1 lb AP = 0.17 lb cooked chicken meat with skin
Chicken Products <b>Chicken Hash<sup>19, 20</sup></b>	Pound	2.60	2/3-cup serving (about 1.8 oz cooked poultry)	38.5	1 lb AP = 0.30 lb cooked chicken meat with skin
Chicken Products <b>Chicken Salad<sup>19, 20</sup></b>	Pound	3.46	1/2-cup serving (about 1.1 oz cooked poultry with skin)	29.0	1 lb AP = 0.25 lb cooked chicken meat with skin
Chicken Products <b>Chicken with Gravy<sup>19, 20</sup></b>	Pound	5.30	1/3-cup serving ( about 1.0 oz cooked poultry)	18.9	1 lb AP = 0.35 lb cooked chicken meat with skin
Chicken Products <b>Chicken with Noodles or Dumplings<sup>19, 20</sup></b>	Pound	1.70	1 cup serving (about 1.4 oz cooked poultry)	58.9	1 lb AP = 0.15 lb cooked chicken meat with skin
Chicken Products <b>Creamed Chicken<sup>19, 20</sup></b>	Pound	2.30	3/4-cup serving (about 1.3 oz cooked poultry)	43.5	1 lb AP = 0.20 lb cooked chicken meat with skin
<b>CHICKPEAS (see BEANS, GARBANZO)</b>					

<sup>19</sup> Yield data is based on minimum percent meat as required by FSIS standard of identity regulations found in 9 CFR.

<sup>20</sup> Purchasers of these products will need to ensure that the name of the food on the product label exactly matches the "As Purchased" description in Column 1.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>EGGS<sup>21, 22, 23</sup></b>					
Eggs <b>Shell Eggs, fresh<sup>21, 22</sup></b> <i>Large Whole</i>	Dozen (24 oz)	12.0	1 large egg	8.4	1 qt (34 oz) about 19 large whole eggs, or 29 whites, or 57 yolks
	Dozen (24 oz)	24.0	1/2 large egg	4.2	
Eggs <b>Frozen Whole Eggs</b> <i>Pasteurized Includes USDA Commodity</i>	5 lb pkg	45.0	1 large egg	2.3	1 lb frozen = about 1-7/8 cups (9 large eggs)
	5 lb pkg	90.0	1/2 large egg	1.2	
	Pound	9.00	1 large egg	11.2	
	Pound	18.0	1/2 large egg	5.6	
Eggs <b>Dried Whole Eggs<sup>23</sup></b>	No. 10 can (48 oz)	96.0	1 large egg	1.1	1 lb AP = about 5-1/3 cups dried egg
	No. 10 can (48 oz)	192.0	1/2 large egg	0.6	2 cups (6 oz) dried eggs and 2 cups water = 1 dozen large eggs
	Pound	32.0	1 large egg	3.2	
	Pound	64.0	1/2 large egg	1.6	
<b>FRANKFURTERS, BOLOGNA<sup>24, 25</sup></b>					
<b>Bologna<sup>24, 25</sup></b>	Pound	16.0	1 oz serving	6.3	
<b>Frankfurters<sup>24, 25</sup></b> <i>8 per pound</i>	Pound	8.00	2 oz frankfurter	12.5	

<sup>21</sup> For other sizes of eggs to use in place of large size eggs, multiply the number (or dozens or cases) of large eggs by a factor as follows: Extra large size, 0.87; medium size, 1.14; small size, 1.35.

<sup>22</sup> The Food and Drug Administration (FDA) has issued a warning for the consumption of raw shell eggs. Susceptible populations such as young children, pregnant women, the elderly, and those with compromised immune systems should avoid eating raw, undercooked, or unpasteurized fresh eggs to avoid foodborne illness.

<sup>23</sup> Quantities are for dried whole eggs. For blends and specialty egg products, use CN-labeled product or manufacturer's documentation.

<sup>24</sup> Includes meat and poultry products. Yields for Bologna, Frankfurters, Knockwurst, and Vienna Sausage are based on products that do not contain: 1) meat or poultry byproducts; 2) cereals; 3) binders; or 4) extenders.

<sup>25</sup> Due to increased number of illnesses associated with *Listeria monocytogenes* and the consumption of unheated hot dogs and luncheon meats, the Food and Drug Administration has advised pregnant women, the elderly, and persons with weakened immune systems to not eat hot dogs or luncheon meats unless they are reheated until steaming hot.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### FRANKFURTERS, BOLOGNA<sup>24, 25</sup> (continued)

<b>Frankfurters</b> <sup>24, 25</sup> 10 per pound	Pound	10.0	1.6 oz frankfurter	10.0	
<b>Knockwurst</b> <sup>24, 25</sup>	Pound	16.0	1 oz serving	6.3	
<b>Vienna Sausage</b> <sup>24, 25</sup>	Pound (drained weight)	16.0	1 oz serving	6.3	

### GAME, fresh or frozen<sup>26</sup>

<b>Game</b> <sup>26</sup> <b>Buffalo</b> <i>Ground</i>	Pound	11.5	1 oz cooked lean meat	8.7	1 lb AP = 0.72 lb cooked, drained lean buffalo
	Pound	7.68	1-1/2 oz cooked lean meat	13.1	
<b>Game</b> <sup>26</sup> <b>Goat</b> <i>Roast</i>	Pound	8.00	1 oz cooked lean meat	12.5	1 lb AP = 0.50 lb cooked, trimmed, sliced lean goat
		5.33	1-1/2 oz cooked lean meat	18.8	
<b>Game</b> <sup>26</sup> <b>Ostrich</b> <i>Medallions</i>	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked lean ostrich
		7.46	1-1/2 oz cooked lean meat	13.5	
<b>Game</b> <sup>26</sup> <b>Venison (Deer)</b> <i>Ground</i> (Like IMPS #996)	Pound	11.5	1 oz cooked lean meat	8.7	1 lb AP = 0.72 lb cooked, drained lean venison
	Pound	7.68	1-1/2 oz cooked lean meat	13.1	

### LAMB, FRESH OR FROZEN

#### LAMB, CHOPS, fresh or frozen

<b>Lamb, Chops, fresh or frozen</b> <i>Shoulder chops</i> <i>With bone</i>	Pound	7.36	1 oz cooked lean meat	13.6	1 lb AP= 0.46 lb cooked lean lamb
	Pound	4.90	1-1/2 oz cooked lean meat	20.5	

<sup>24</sup> Includes meat and poultry products. Yields for Bologna, Frankfurters, Knockwurst, and Vienna Sausage are based on products that do not contain: 1) meat or poultry byproducts; 2) cereals; 3) binders; or 4) extenders.

<sup>25</sup> Due to increased number of illnesses associated with *Listeria monocytogenes* and the consumption of unheated hot dogs and luncheon meats, the Food and Drug Administration has advised pregnant women, the elderly, and persons with weakened immune systems to not eat hot dogs or luncheon meats unless they are reheated until steaming hot.

<sup>26</sup> All "game" meat must be purchased from a USDA inspected establishment. Wild game is not allowed to be used in FNS Child Nutrition Programs.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
LAMB, GROUND, frozen					
Lamb, Ground, frozen	Pound	10.2	1 oz cooked lean meat	9.9	1 lb AP = 0.64 lb cooked, drained lean lamb
	Pound	6.82	1-1/2 oz cooked lean meat	14.7	
LAMB, LEG ROAST, fresh or frozen					
Lamb, Leg Roast, fresh or frozen Without bone	Pound	9.76	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked lean lamb
	Pound	6.50	1-1/2 oz cooked lean meat	15.4	
LAMB, SHOULDER ROAST, fresh or frozen					
Lamb, Shoulder Roast, fresh or frozen Without bone	Pound	8.64	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean lamb
	Pound	5.76	1-1/2 oz cooked lean meat	17.4	
LAMB, STEW MEAT, fresh or frozen					
Lamb, Stew Meat, fresh or frozen Without bone	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked lean lamb
	Pound	6.93	1-1/2 oz cooked lean meat	14.5	
LENTILS, dry					
Lentils, dry	Pound	29.6	1/4 cup cooked lentils	3.4	1 lb dry = about 2-3/8 cups dry
	Pound	19.7	3/8 cup cooked lentils	5.1	
NUTS: TREE NUTS and OTHER NUTS, shelled <sup>27</sup>					
Tree Nuts Almonds <sup>27</sup> Includes USDA Commodity	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-1/2 cups chopped almonds
	2 lb pkg	32.0	1 oz nuts	3.2	
	25 lb pkg	400.0	1 oz nuts	0.25	
Tree Nuts Brazil nuts <sup>27</sup>	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-1/4 cups whole Brazil nuts

<sup>27</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>NUTS: TREE NUTS and OTHER NUTS, shelled<sup>27</sup> (continued)</b>					
Tree Nuts <b>Cashew nuts<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-1/3 cups cashew nuts, whole or halves
Tree Nuts <b>Filberts (Hazelnuts)<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 4 cups chopped filberts
Tree Nuts <b>Macadamia nuts<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-1/3 cups whole macadamia nuts
Tree Nuts <b>Pecans<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-3/4 cups chopped pecans
Tree Nuts <b>Pine nuts (Pinyons)<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 2-7/8 cups whole pine nuts
Tree Nuts <b>Pistachio nuts<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-1/2 cups pistachio nuts
Tree Nuts <b>Walnuts<sup>27</sup></b> <i>Black</i>	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-5/8 cups chopped black walnuts
Tree Nuts <b>Walnuts<sup>27</sup></b> English Includes USDA Commodity	Pound 30 lb pkg	16.0 480.0	1 oz nuts 1 oz nuts	6.3 0.21	1 lb = about 3-3/4 cups pieces English walnuts
Other Nuts <b>Peanut granules<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 3-1/4 cups peanut granules
Other Nuts <b>Peanuts<sup>27</sup></b> <i>Includes USDA Commodity</i>	No. 10 can (64 oz) Pound 12 oz can	64.0 16.0 12.0	1 oz nuts 1 oz nuts 1 oz nuts	1.6 6.3 8.4	1 No. 10 can = about 12 cups roasted peanuts 1 lb = about 3 cups whole peanuts
Other Nuts <b>Soy nuts<sup>27</sup></b>	Pound	16.0	1 oz nuts	6.3	1 lb = about 4-1/4 cups whole soy nuts

<sup>27</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### PEANUT BUTTER and OTHER NUT or SEED BUTTERS

<b>Almond</b> butter	No. 10 can (108 oz)	97.5	2 tablespoons nut/seed butter (1 oz meat alternate)	1.1	2 Tbsp = about 1.1 oz nut/seed butter
<b>Cashew nut</b> butter					
<b>Peanut</b> butter					
<b>Reduced fat peanut</b> butter	No. 10 can (108 oz)	65.0	3 tablespoons nut/seed butter (1-1/2 oz meat alternate)	1.6	
<b>Sesame seed</b> butter					
<b>Soy nut</b> butter					
<b>Sunflower seed</b> butter	32 oz jar	28.8	2 tablespoons nut/seed butter (1 oz meat alternate)	3.5	
<i>Includes USDA Commodity peanut butter</i>	32 oz jar	19.2	3 tablespoons nut/seed butter (1-1/2 oz meat alternate)	5.3	
	Pound	14.4	2 tablespoons nut/seed butter (1 oz meat alternate)	7.0	
	Pound	9.62	3 tablespoons nut/seed butter (1-1/2 oz meat alternate)	10.4	

## PEAS

### PEAS, dry

<b>Peas, dry</b> <i>Split</i>	Pound	23.1	1/4 cup cooked peas	4.4	1 lb dry = about 2-1/4 cups dry
	Pound	15.4	3/8 cup cooked peas	6.5	
<b>Peas, dry</b> <i>Whole</i>	Pound	25.6	1/4 cup cooked peas	4.0	1 lb dry = about 2-1/3 cups dry
	Pound	17.0	3/8 cup cooked peas	5.9	

### PEAS, BLACKEYED (see BEANS, BLACKEYED)

### PEA SOUP

<b>Pea Soup, dry peas, canned</b> <i>Condensed</i> (1 part soup to 1 part water) <i>Includes Cream of pea soup</i>	No. 3 Cyl (50 oz)	23.0	1/2 cup reconstituted (1/4 cup cooked peas)	4.4	Reconstitute 1 part soup with not more than 1 part water
	Pound	7.30	1/2 cup reconstituted (1/4 cup cooked peas)	13.7	
<b>Pea Soup, dry peas, canned</b> <i>Ready-to-serve</i>	8 oz can	1.00	1 cup serving (1/2 cup cooked peas)	100.0	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### PORK, FRESH OR FROZEN

#### PORK, GROUND, fresh or frozen<sup>28, 29</sup>

<b>Pork, Ground, fresh or frozen<sup>28</sup></b> <i>no more than 30% fat</i> Market Style (Like IMPS #496)	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked lean meat
	Pound	7.46	1-1/2 oz cooked lean meat	13.5	
<b>Pork, Ground, fresh or frozen<sup>29</sup></b> <i>no more than 26% fat</i> (Like IMPS #496)	Pound	11.5	1 oz cooked lean meat	8.7	1 lb AP = 0.72 lb cooked lean meat
	Pound	7.68	1-1/2 oz cooked lean meat	13.1	
<b>Pork, Ground, fresh or frozen<sup>29</sup></b> <i>no more than 24% fat</i> (Like IMPS #496)	Pound	11.6	1 oz cooked lean meat	8.7	1 lb AP = 0.73 lb cooked lean meat
	Pound	7.78	1-1/2 oz cooked lean meat	12.9	
<b>Pork, Ground, fresh or frozen<sup>29</sup></b> <i>no more than 20% fat</i> Includes USDA Commodity (Like IMPS #496)	Pound	11.8	1 oz cooked lean meat	8.5	1 lb AP = 0.74 lb cooked lean meat
	Pound	7.89	1-1/2 oz cooked lean meat	12.7	
<b>Pork, Ground, fresh or frozen<sup>29</sup></b> <i>no more than 15% fat</i> (Like IMPS #496)	Pound	12.0	1 oz cooked lean meat	8.4	1 lb AP = 0.75 lb cooked lean meat
	Pound	8.00	1-1/2 oz cooked lean meat	12.5	
<b>Pork, Ground, fresh or frozen<sup>29</sup></b> <i>no more than 10% fat</i> (Like IMPS #496)	Pound	12.1	1 oz cooked lean meat	8.3	1 lb AP = 0.76 lb cooked lean meat
	Pound	8.10	1-1/2 oz cooked lean meat	12.4	

<sup>28</sup> Ground Pork, Market Style (no more than 30 percent fat) is based on USDA standard as referenced in FSIS Policy Book. Must comply with Code of Federal Regulations, Title 9, Part 319.15(a).

<sup>29</sup> Ground Pork is based on USDA standard as referenced in FSIS Policy Book. Must comply with Code of Federal Regulations, Title 9, Part 319.15(a), but with maximum fat content as is listed here.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PORK, HEART, fresh or frozen</b>					
<b>Pork, Heart, fresh or frozen</b> <i>Trimmed</i>	Pound	9.12	1 oz cooked lean meat	11.0	1 lb AP = 0.57 lb cooked pork heart
	Pound	6.08	1-1/2 oz cooked lean meat	16.5	
<b>Pork, Heart, fresh or frozen</b> <i>Untrimmed</i>	Pound	8.16	1 oz cooked lean meat	12.3	1 lb AP = 0.51 lb cooked, trimmed pork heart
	Pound	5.44	1-1/2 oz cooked lean meat	18.4	
<b>PORK LEG (FRESH HAM), fresh or frozen</b>					
<b>Pork Leg (Fresh Ham), fresh or frozen</b> <i>Short shank</i> <i>With bone</i> <i>(Like IMPS #401A)</i>	Pound	7.20	1 oz cooked lean meat	13.9	1 lb AP = 0.45 lb cooked, trimmed, boned, sliced lean meat
	Pound	4.80	1-1/2 oz cooked lean meat	20.9	
<b>Pork Leg (Fresh Ham), fresh or frozen</b> <i>Outside, Roast</i> <i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #402E)</i> <i>Includes USDA Commodity</i>	Pound	9.28	1 oz cooked lean meat	10.8	1 lb AP = 0.58 lb cooked, trimmed, sliced lean meat
	Pound	6.18	1-1/2 oz cooked lean meat	16.2	
<b>Pork Leg (Fresh Ham), fresh or frozen</b> <i>Inside roast</i> <i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #402F)</i> <i>Includes USDA Commodity</i>	Pound	8.64	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked, trimmed, sliced lean meat
	Pound	5.76	1-1/2 oz cooked lean meat	17.4	
<b>Pork Leg (Fresh Ham), fresh or frozen</b> <i>Pork leg tip</i> <i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #402H)</i>	Pound	9.92	1 oz cooked lean meat	10.1	1 lb AP = 0.62 lb cooked lean meat
	Pound	6.61	1-1/2 oz cooked lean meat	15.2	
<b>PORK LIVER, fresh or frozen</b>					
<b>Pork Liver, fresh or frozen</b> <i>Whole</i> <i>Untrimmed</i> <i>(Like IMPS #710)</i>	Pound	12.4	1 oz cooked lean meat	8.1	1 lb AP = 0.78 lb cooked, trimmed, sliced pork liver
	Pound	8.32	1-1/2 oz cooked lean meat	12.1	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
PORK LOIN CHOPS, fresh or frozen					
Pork Loin Chops, fresh or frozen With bone 1/4-inch trim	Pound	7.20	1 oz cooked lean meat	13.9	1 lb AP = 0.45 lb cooked lean meat
	Pound	4.80	1-1/2 oz cooked lean meat	20.9	
Pork Loin Chops, fresh or frozen Without bone 1/4-inch trim (Like IMPS #1413)	Pound	9.44	1 oz cooked lean meat	10.6	1 lb AP = 0.59 lb cooked, trimmed, sliced lean meat
	Pound	6.29	1-1/2 oz cooked lean meat	15.9	
Pork Loin Chops, fresh or frozen Without bone, Practically-free-of-fat (Like IMPS #1413)	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked lean meat
	Pound	7.46	1-1/2 oz cooked lean meat	13.5	
PORK LOIN END CHOPS, fresh or frozen					
Pork Loin End Chops, fresh or frozen With bone 1/4-inch trim (Like IMPS #1410B)	Pound	5.60	1 oz cooked lean meat	17.9	1 lb AP = 0.35 lb cooked, trimmed, boned sliced lean meat
	Pound	3.73	1-1/2 oz cooked lean meat	26.9	
Pork Loin End Chops, fresh or frozen With bone Practically-free-of-fat (Like IMPS #1410B)	Pound	6.56	1 oz cooked lean meat	15.3	1 lb AP = 0.41 lb cooked, boned, trimmed, sliced lean meat
	Pound	4.37	1-1/2 oz cooked lean meat	22.9	
Pork Loin End Chops, fresh or frozen Without bone 1/4-inch trim (Like IMPS #1413B)	Pound	8.48	1 oz cooked lean meat	11.8	1 lb AP = 0.53 lb cooked, trimmed, sliced lean meat
	Pound	5.65	1-1/2 oz cooked lean meat	17.7	
Pork Loin End Chops, fresh or frozen Without bone Practically-free-of-fat (Like IMPS #1413B)	Pound	10.7	1 oz cooked lean meat	9.4	1 lb AP = 0.67 lb cooked lean meat
	Pound	7.14	1-1/2 oz cooked lean meat	14.1	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PORK LOIN ROAST, fresh or frozen</b>					
<b>Pork Loin Roast, fresh or frozen</b> <i>With bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #410)</i>	Pound	7.68	1 oz cooked lean meat	13.1	1 lb AP = 0.48 lb cooked, trimmed, boned, sliced lean meat
	Pound	5.12	1-1/2 oz cooked lean meat	19.6	
<b>Pork Loin Roast, fresh or frozen</b> <i>Without bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #413)</i>	Pound	8.00	1 oz cooked lean meat	12.5	1 lb AP = 0.50 lb cooked, trimmed, sliced lean meat
	Pound	5.33	1-1/2 oz cooked lean meat	18.8	
<b>Pork Loin Roast, fresh or frozen</b> <i>Without bone</i> <i>Practically-free-of-fat</i> <i>(Like IMPS #413 )</i>	Pound	10.2	1 oz cooked lean meat	9.9	1 lb AP = 0.64 lb cooked, trimmed, sliced lean meat
	Pound	6.82	1-1/2 oz cooked lean meat	14.7	
<b>Pork Loin Roast, fresh or frozen</b> <i>Center cut</i> <i>11 Ribs</i> <i>With bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #412C)</i>	Pound	5.28	1 oz cooked lean meat	19.0	1 lb AP = 0.33 lb cooked, boned, trimmed, sliced lean meat
	Pound	3.52	1-1/2 oz cooked lean meat	28.5	
<b>Pork Loin Roast, fresh or frozen</b> <i>Center cut</i> <i>11 Ribs</i> <i>With bone</i> <i>Practically free of fat</i> <i>(Like IMPS #412C )</i>	Pound	8.16	1 oz cooked lean meat	12.3	1 lb AP = 0.51 lb cooked, boned, trimmed, sliced lean meat
	Pound	5.44	1-1/2 oz cooked lean meat	18.4	
<b>Pork Loin Roast, fresh or frozen</b> <i>Center cut</i> <i>11 ribs</i> <i>Without bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #412E)</i>	Pound	9.92	1 oz cooked lean meat	10.1	1 lb AP = 0.62 lb cooked, trimmed, sliced lean meat
	Pound	6.61	1-1/2 oz cooked lean meat	15.2	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PORK SAUSAGE, fresh or frozen<sup>30, 31</sup></b>					
<b>Pork Sausage, fresh or frozen</b> <i>Bulk, Link, or Patty<sup>30</sup></i> <i>Market Style</i> <i>Raw</i>	Pound	7.52	1 oz cooked lean meat	13.3	1 lb AP = 0.47 lb cooked lean meat
	Pound	5.01	1-1/2 oz cooked lean meat	20.0	
<b>Pork Sausage, fresh or frozen</b> <i>Italian style<sup>31</sup></i> <i>no more than 35% fat (3% water maximum)</i> <i>Raw</i> <i>(Like IMPS #818)</i>	Pound	9.92	1 oz cooked lean meat	10.1	1 lb AP = 0.62 lb cooked, drained Italian sausage
	Pound	6.61	1-1/2 oz cooked lean meat	15.2	
<b>PORK SHOULDER, BOSTON BUTT, fresh or frozen</b>					
<b>Pork Shoulder, Boston Butt, fresh or frozen</b> <i>With bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #406)</i>	Pound	8.32	1 oz cooked lean meat	12.1	1 lb AP = 0.52 lb cooked, boned, trimmed, sliced lean meat
	Pound	5.54	1-1/2 oz cooked lean meat	18.1	
<b>Pork Shoulder, Boston Butt, fresh or frozen</b> <i>Without bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #406A)</i>	Pound	9.60	1 oz cooked lean meat	10.5	1 lb AP = 0.60 lb cooked lean meat
	Pound	6.40	1-1/2 oz cooked lean meat	15.7	
<b>PORK SHOULDER, PICNIC, fresh or frozen</b>					
<b>Pork Shoulder, Picnic, fresh or frozen</b> <i>With bone</i> <i>1/4-inch trim</i> <i>(Like IMPS #405)</i>	Pound	6.88	1 oz cooked lean meat	14.6	1 lb AP = 0.43 lb cooked, boned, trimmed, sliced lean meat
	Pound	4.58	1-1/2 oz cooked lean meat	21.9	

<sup>30</sup> Fresh Pork Sausage, Market Style (no more than 50 percent trimmable fat) is based on USDA, FSIS standard as published in the Code of Federal Regulations, Title 9, Part 319.141 Fresh Pork Sausage.

<sup>31</sup> Sausage, Italian, products (total fat content no more than 35 percent). May be made with Pork, Beef, and/or Veal, based on USDA, FSIS standard as published in the Code of Federal Regulations, Title 9, Part 319.145.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PORK SHOULDER, PICNIC, fresh or frozen (continued)</b>					
<b>Pork Shoulder, Picnic, fresh or frozen</b> <i>Without bone 1/4-inch trim (Like IMPS #405A) Includes USDA Commodity</i>	Pound	9.12	1 oz cooked lean meat	11.0	1 lb AP = 0.57 lb cooked, trimmed, sliced lean meat
	Pound	6.08	1-1/2 oz cooked lean meat	16.5	
<b>Pork Shoulder, Picnic, fresh or frozen</b> <i>Cushion Without bone Practically-free-of-fat (Like IMPS #405B)</i>	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked, sliced lean meat
	Pound	6.93	1-1/2 oz cooked lean meat	14.5	
<b>PORK SIRLOIN, ROAST, fresh or frozen</b>					
<b>Pork Sirloin Roast, fresh or frozen</b> <i>Without bone 1/4-inch trim (Like IMPS #414A)</i>	Pound	9.92	1 oz cooked lean meat	10.1	1 lb AP = 0.62 lb cooked, sliced lean meat
	Pound	6.61	1-1/2 oz cooked lean meat	15.2	
<b>Pork Sirloin Roast, fresh or frozen</b> <i>Without bone Practically-free-of-fat (Like IMPS #414A)</i>	Pound	9.12	1 oz cooked lean meat	11.0	1 lb AP = 0.57 lb cooked, sliced lean meat
	Pound	6.08	1-1/2 oz cooked lean meat	16.5	
<b>PORK SPARERIBS, fresh or frozen</b>					
<b>Pork Spareribs, fresh or frozen</b>	Pound	6.24	1 oz cooked lean meat	16.1	1 lb AP = 0.39 lb cooked lean meat
	Pound	4.16	1-1/2 oz cooked lean meat	24.1	
<b>PORK STEAK, frozen</b>					
<b>Pork Steak, fresh or frozen</b> <i>Cubed (Like IMPS #1400)</i>	Pound	5.16	One 3.1 oz raw steak when cooked provides 2 oz cooked lean meat	19.4	1 lb AP = 0.65 lb cooked lean meat
	Pound	3.40	One 4.7 oz raw steak when cooked provides 3 oz lean cooked meat	29.5	
	Pound	10.4	1 oz cooked lean meat	9.7	
	Pound	6.93	1-1/2 oz cooked lean meat	14.5	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### PORK STEAK, frozen (continued)

<b>Pork Steak, fresh or frozen</b> <i>Flaked and Formed</i> 4 oz raw steaks (Like IMPS #1438)	Pound	4.00	One 4.0 oz raw steak when cooked provides 2.7 oz cooked lean meat	25.0	1 lb AP = 0.68 lb cooked lean meat
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### PORK STEW MEAT, fresh or frozen

<b>Pork Stew Meat, fresh or frozen</b> <i>Composite of trimmed retail cuts</i> Without bone 1/4-inch trim (Like IMPS #435A)	Pound	9.28	1 oz cooked lean meat	10.8	1 lb AP = 0.58 lb cooked, trimmed, drained lean meat
	Pound	6.18	1-1/2 oz cooked lean meat	16.2	

### PORK STOMACH (MAWS), fresh or frozen

<b>Pork Stomach (Maws), fresh or frozen</b> <i>Scalded</i> (Like IMPS #729)	Pound	11.3	1 oz cooked lean meat	8.9	1 lb AP = 0.71 lb cooked, drained pork stomach
	Pound	7.57	1-1/2 oz cooked lean meat	13.3	

## PORK, MILD CURED

### PORK, MILD CURED, Ready-to-cook, chilled or frozen<sup>32</sup>

<b>Pork, Mild Cured, Ready-to-cook, chilled or frozen</b>	Pound	11.0	1 oz cooked lean meat	9.1	1 lb AP = 0.69 lb cooked lean meat
<b>Canadian bacon<sup>32</sup></b>	Pound	7.36	1-1/2 oz cooked lean meat	13.6	
<b>Pork, Mild Cured, Ready-to-cook, chilled or frozen</b>	Pound	8.64	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
<b>Pork shoulder Boston butt<sup>32</sup></b> <i>With bone</i>	Pound	5.76	1-1/2 oz cooked lean meat	17.4	
<b>Pork, Mild Cured, Ready-to-cook, chilled or frozen</b>	Pound	9.60	1 oz cooked lean meat	10.5	1 lb AP = 0.60 lb cooked lean meat
<b>Pork shoulder Boston butt<sup>32</sup></b> <i>Without bone</i>	Pound	6.40	1-1/2 oz cooked lean meat	15.7	

<sup>32</sup> Purchasers of these products will need to ensure that the name of the food on the product labels exactly matches the "As Purchased" description in Column 1.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PORK, MILD CURED, Ready-to-cook, chilled or frozen<sup>32</sup> (continued)</b>					
Pork, Mild Cured, Ready-to-cook, chilled or frozen	Pound	6.72	1 oz cooked lean meat	14.9	1 lb AP = 0.42 lb cooked lean meat
<b>Pork shoulder Picnic<sup>32</sup></b> <i>With bone</i>	Pound	4.48	1-1/2 oz cooked lean meat	22.4	
Pork, Mild Cured, Ready-to-cook, chilled or frozen	Pound	8.48	1 oz cooked lean meat	11.8	1 lb AP = 0.53 lb cooked lean meat
<b>Pork Shoulder Picnic<sup>32</sup></b> <i>Without bone</i>	Pound	5.65	1-1/2 oz cooked lean meat	17.7	
<b>PORK, MILD CURED, Fully Cooked, chilled or frozen<sup>32, 33</sup></b>					
Pork, Mild Cured, Fully Cooked, chilled or frozen	Pound	14.2	1.12 oz ham with natural juices (provides 1 oz lean cooked meat)	7.0	1 lb AP = 0.90 lb cooked lean meat (Protein Fat Free value of 18.5)
<b>Ham With natural juices<sup>32</sup></b> <i>Boiled Without bone (Like IMPS #508 Style B)</i>	Pound	9.58	1.67 oz ham with natural juices (provides 1-1/2 oz cooked lean meat)	10.5	
Pork, Mild Cured, Fully Cooked, chilled or frozen	Pound	14.2	1.12 oz ham with natural juices (provides 1 oz lean cooked meat)	7.0	1 lb AP = 0.90 lb cooked lean meat (Protein Fat Free value of 18.5)
<b>Ham With natural juices<sup>32</sup></b> <i>Smoked Without bone (Like IMPS #509 Style B)</i>	Pound	9.58	1.67 oz ham with natural juices (provides 1-1/2 oz cooked lean meat)	10.5	

<sup>32</sup> Purchasers of these products will need to ensure that the name of the food on the product labels exactly matches the "As Purchased" description in Column 1.

<sup>33</sup> For products labeled "Ham and Water Products X% of weight is added ingredients" to be properly utilized in Child Nutrition Programs, you should either 1) purchase a CN labeled product or 2) take out the percent of added water/ingredients by multiplying the finished weight by the percent added ingredients and then subtracting that amount from the finished weight, divide by the manufacturers cooking yield to obtain the raw weight of the product and then multiply by the *Food Buying Guide* yield for the specific cut of pork used to process the product.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PORK, MILD CURED, Fully Cooked, chilled or frozen<sup>32</sup> (continued)</b>					
Pork, Mild Cured, Fully Cooked, chilled or frozen	Pound	13.1	1.22 oz ham water added (provides 1 oz cooked lean meat)	7.7	1 lb AP = 0.82 lb cooked lean meat (Protein Fat Free value of 17.0)
<b>Ham</b> <b>Water added<sup>32</sup></b> <i>Smoked Rolled Fully cooked (Like IMPS #505 Style C) USDA Commodity</i>	Pound	8.74	1.83 oz ham water added (provides 1-1/2 oz cooked lean meat)	11.5	
Pork, Mild Cured, Fully Cooked, chilled or frozen	Pound	13.1	1.22 oz ham water added (provides 1 oz cooked lean meat)	7.7	1 lb AP = 0.82 lb cooked lean meat (Protein Fat Free value of 17.0)
<b>Ham</b> <b>Water added<sup>32</sup></b> <i>Boiled Without bone (Like IMPS #508 Style C)</i>	Pound	8.74	1.83 oz ham water added (provides 1-1/2 oz cooked lean meat)	11.5	
Pork, Mild Cured, Fully Cooked, chilled or frozen	Pound	13.1	1.22 oz ham water added (provides 1 oz cooked lean meat)	7.7	1 lb AP = 0.82 lb cooked lean meat (Protein Fat Free value of 17.0)
<b>Ham</b> <b>Water added<sup>32</sup></b> <i>Chunked and Formed Smoked Without bone (Like IMPS #511 Style C)</i>	Pound	8.74	1.83 oz ham water added (provides 1-1/2 oz cooked lean meat)	11.5	
Pork, Mild Cured, Fully Cooked, chilled or frozen	Pound	11.5	1.39 oz cooked pork water added (provides 1.0 oz lean cooked meat)	8.7	1 lb AP = 0.72 lb cooked pork shoulder water added (Protein fat free value = 16.5)
<b>Pork Shoulder Boston butt</b> <b>Water added<sup>32</sup></b> <i>Without bone Smoked Special (Like IMPS #531 Style C)</i>	Pound	7.61	2.1 oz cooked pork water added (provides 1-1/2 oz lean cooked meat)	13.2	

<sup>32</sup> Purchasers of these products will need to ensure that the name of the food on the product labels exactly matches the "As Purchased" description in Column 1.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### PORK, MILD CURED, canned<sup>32</sup>

Pork, Mild Cured, canned <b>Ham</b> <sup>32</sup>	Pound	10.2	1 oz heated lean meat	9.9	1 lb AP = 0.64 lb cooked lean meat
	Pound	6.82	1-1/2 oz heated lean meat	14.7	
	Pound	10.2	1.2 oz unheated meat (provides 1 oz heated lean meat)	9.9	
	Pound	6.82	1.8 oz unheated meat (provides 1.5 oz cooked lean meat)	14.7	

### PORK, COOKED

#### PORK, CANNED

Pork, canned <i>Pork with Natural Juices</i> <i>USDA Commodity</i>	No. 2-1/2 can (29 oz)	14.7	1 oz heated, drained lean meat	6.9	1 lb AP = 0.51 lb heated, drained pork
	No. 2-1/2 can (29 oz)	9.86	1-1/2 oz heated, drained lean meat	10.2	
	Pound	8.16	1 oz heated, drained lean meat	12.3	
	Pound	5.44	1-1/2 oz heated, drained lean meat	18.4	

### SEAFOOD

#### Seafood, CLAMS, fresh, frozen or canned

Seafood, fresh or frozen <b>Clams</b> <i>Shucked</i> <i>Drained</i>	Pound	8.00	1 oz cooked fish	12.5	1 lb AP = 0.50 lb cooked clams
	Pound	5.33	1-1/2 oz cooked fish	18.8	
Seafood, fresh or frozen <b>Clams</b> <i>Minced</i>	Pound	10.5	1 oz cooked fish	9.6	1 lb AP = 0.66 lb cooked clams
	Pound	7.04	1-1/2 oz cooked fish	14.3	

<sup>32</sup> Purchasers of these products will need to ensure that the name of the food on the product labels exactly matches the "As Purchased" description in Column 1.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
Seafood, CLAMS, fresh, frozen or canned (continued)					
Seafood, canned <b>Clams</b> <i>Minced</i>	51 oz can	19.3	1 oz heated fish	5.2	51 oz can = about 22.0 oz drained, unheated clams
	51 oz can	12.8	1-1/2 oz heated fish	7.9	
	7-1/2 oz can	2.83	1 oz heated fish	35.4	
	7-1/2 oz can	1.89	1-1/2 oz heated fish	53.0	
Seafood, CRAB, fresh or frozen					
Seafood, fresh or frozen <b>Crab</b> <i>Meat Cooked</i>	Pound	15.5	1 oz heated fish	6.5	1 lb AP = 0.97 lb heated crab meat
	Pound	10.3	1-1/2 oz heated fish	9.8	
Seafood, CRAWFISH, fresh or frozen					
Seafood, fresh <b>Crawfish</b> <i>Whole In shell Live</i>	Pound	1.28	1 oz cooked fish	78.2	1 lb AP = 0.08 lb cooked, shelled crawfish tail meat
	Pound	0.85	1-1/2 oz cooked fish	117.7	
Seafood, fresh or frozen <b>Crawfish</b> <i>Tail meat Peeled and Deveined Cooked</i>	Pound	14.4	1 oz heated fish	7.0	1 lb AP = 0.90 lb heated crawfish tail meat
	Pound	9.60	1-1/2 oz heated fish	10.5	
Seafood, FISH FILLETS and STEAKS, fresh or frozen					
Seafood, fresh or frozen <b>Fish Fillets</b>	Pound	11.2	1 oz cooked fish	9.0	1 lb AP = 0.70 lb cooked fish
	Pound	7.46	1-1/2 oz cooked fish	13.5	
Seafood, fresh or frozen <b>Fish Steaks</b> <i>Cross cut With bone</i>	Pound	10.5	1 oz cooked fish	9.6	1 lb AP = 0.66 lb cooked fish
	Pound	7.04	1-1/2 oz cooked fish	14.3	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>Seafood, FISH PORTIONS, frozen<sup>34, 35, 36</sup></b>					
Seafood, frozen <b>Fish Portions<sup>34</sup></b> <i>Fried battered</i> <i>(45 percent fish)<sup>35</sup></i> <i>(Not from minced fish)</i>					
3 oz portion	Pound	5.33	1 portion (about 1.1 oz cooked fish)	18.8	1 lb AP = 0.37 lb cooked fish
2 oz portion	Pound	8.00	1 portion (about 0.7 oz cooked fish)	12.5	1 lb AP = 0.37 lb cooked fish
Seafood, frozen <b>Fish Portions<sup>34</sup></b> <i>Fried breaded</i> <i>(65 percent fish)<sup>36</sup></i> <i>(Not from minced fish)</i>					
4 oz portion	Pound	4.00	1 portion (about 2.2 oz cooked fish)	25.0	1 lb AP = 0.54 lb cooked fish
3 oz portion	Pound	5.33	1 portion (about 1.6 oz cooked fish)	18.8	1 lb AP = 0.54 lb cooked fish
2 oz portion	Pound	8.00	1 portion (about 1.1 oz cooked fish)	12.5	1 lb AP = 0.54 lb cooked fish

<sup>34</sup> The fish portions and fish sticks provided in this guide are made using compressed fish fillet block (labeled as fish) which provides 0.78 lb cooked fish from 1 lb frozen fish block whereas compressed minced fish (labeled as minced fish) obtains 0.75 lb cooked fish from 1 lb frozen minced fish block.

<sup>35</sup> There is no standard for this product. It is recommended that you use products with CN labels or specify "FISH PORTIONS, FROZEN, FRIED, BATTERED (45 PERCENT) FISH" and request a Certificate of Inspection from the processor.

<sup>36</sup> Fish Portions, Frozen, Fried, breaded is based on the National Oceanic and Atmospheric Administration's (NOAA) Fishery Products Inspection Manual 25 Part II Chapter 4, section 07 which specifies the product must contain a minimum of 65 percent fish.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>Seafood, FISH PORTIONS, frozen<sup>34, 37</sup> (continued)</b>					
Seafood, frozen <b>Fish Portions<sup>34</sup></b> <i>Raw breaded (75 percent fish)<sup>37</sup> (Not from minced fish)</i>					
4 oz portion	Pound	4.00	1 portion (about 2.3 oz cooked fish)	25.0	1 lb AP = 0.58 lb cooked fish
3 oz portion	Pound	5.33	1 portion (about 1.7 oz cooked fish)	18.8	1 lb AP = 0.58 lb cooked fish
2 oz portion	Pound	8.00	1 portion (about 1.2 oz cooked fish)	12.5	1 lb AP = 0.58 lb cooked fish
Seafood, frozen <b>Fish Portions<sup>34</sup></b> <i>Raw unbreaded (not from minced fish)</i>					
4 oz portion	Pound	4.00	1 portion (about 3.1 oz cooked fish)	25.0	1 lb AP = 0.78 lb cooked fish
3 oz portion	Pound	5.33	1 portion (about 2.3 oz cooked fish)	18.8	1 lb AP = 0.78 lb cooked fish
2 oz portion	Pound	8.00	1 portion (about 1.6 oz cooked fish)	12.5	1 lb AP = 0.78 lb cooked fish

<sup>34</sup> The fish portions and fish sticks provided in this guide are made using compressed fish fillet block (labeled as fish) which provides 0.78 lb cooked fish from 1 lb frozen fish block whereas compressed minced fish (labeled as minced fish) obtains 0.75 lb cooked fish from 1 lb frozen minced fish block.

<sup>37</sup> Fish Portions, Frozen, Raw, Breaded is based on the NOAA's Fishery Products Inspection Manual 25 Part II Chapter 4, section 05 which specifies the product must contain a minimum of 75 percent fish.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>Seafood, FISH STICKS, frozen<sup>34, 38</sup></b>					
Seafood, frozen <b>Fish Sticks<sup>34</sup></b> <i>Fried breaded</i> <i>(60 percent fish)<sup>38</sup></i> <i>(Not from minced fish)</i> <i>1 oz stick</i>	Pound	16.0	1 stick (about 0.5 oz cooked fish)	6.3	1 lb AP = 0.49 lb cooked fish
	Pound	8.00	2 sticks (about 1.0 oz cooked fish)	12.5	
	Pound	5.33	3 sticks (about 1.5 oz cooked fish)	18.8	
	Pound	4.00	4 sticks (about 2.0 oz cooked fish)	25.0	
Seafood, frozen <b>Fish Sticks<sup>34</sup></b> <i>Raw breaded</i> <i>(72 percent fish)</i> <i>(Not from minced fish)</i> <i>1 oz stick</i>	Pound	16.0	1 stick (about 0.6 oz cooked fish)	6.3	1 lb AP = 0.56 lb cooked fish
	Pound	8.00	2 sticks (about 1.1 oz cooked fish)	12.5	
	Pound	5.33	3 sticks (about 1.7 oz cooked fish)	18.8	
	Pound	4.00	4 sticks (about 2.2 oz cooked fish)	25.0	
<b>Seafood, MACKEREL, chilled, frozen, or canned</b>					
Seafood, chilled or frozen <b>Mackerel</b> <i>Smoked, Cooked</i> <i>Whole</i> <i>Split</i> <i>With bone</i> <i>With skin</i>	Pound	9.76	1 oz fish without bone or skin	10.3	1 lb AP = 0.61 lb deheaded, skinned, boned, mackerel
	Pound	6.50	1-1/2 oz fish without bone or skin	15.4	

<sup>34</sup> The fish portions and fish sticks provided in this guide are made using compressed fish fillet block (labeled as fish) which provides 0.78 lb cooked fish from 1 lb frozen fish block whereas compressed minced fish (labeled as minced fish) obtains 0.75 lb cooked fish from 1 lb frozen minced fish block.

<sup>38</sup> Fish Sticks, Frozen, Fried, Breaded is based the National Oceanic and Atmospheric Administration's (NOAA) Fishery Products Inspection Manual 25 Part II Chapter 4, section 06 which specifies that the product must contain a minimum of 60 percent fish.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
Seafood, MACKEREL, chilled, frozen, or canned (continued)					
Seafood, canned Mackerel	No. 300 can (15 oz)	8.87	1 oz drained fish	11.3	1 No. 300 can = about 8-7/8 oz drained, unheated mackerel
	No. 300 can (15 oz)	5.91	1-1/2 oz drained fish	17.0	
	No. 300 can (15 oz)	7.95	1 oz heated, drained fish	12.6	
	No. 300 can (15 oz)	5.30	1-1/2 oz heated, drained fish	18.9	
Seafood, OYSTERS, fresh or frozen					
Seafood, fresh or frozen Oysters Shucked Drained	Pound	8.00	1 oz cooked fish	12.5	1 lb AP = 0.50 lb cooked oysters
	Pound	5.33	1-1/2 oz cooked fish	18.8	
Seafood, SALMON, pouch pack or canned					
Seafood, pouch pack Salmon Without bone Without skin Water-packed Includes USDA Commodity	Pound	13.7	1 oz drained fish	7.3	1 lb AP = 0.86 lb drained salmon
	Pound	9.17	1-1/2 oz drained fish	11.0	
	4 lb pouch	55.0	1 oz drained fish	1.9	
	4 lb Pouch	36.6	1-1/2 drained fish	2.8	
Seafood, canned Salmon Pink	64 oz can	48.0	1 oz heated fish	2.1	64 oz can = about 52.0 oz drained, unheated pink salmon
	64 oz can	32.0	1-1/2 oz heated fish	3.2	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>Seafood, SALMON, pouch pack or canned (continued)</b>					
Seafood, canned <b>Salmon</b> <i>Water-packed Includes USDA Commodity</i>	15-1/2 oz can	11.6	1 oz heated fish	8.7	15-1/2 oz can = about 12-3/4 oz drained, unheated salmon with bones and skin
	15-1/2 oz can	7.73	1-1/2 oz heated fish	13.0	14-3/4 oz can = 10.0 oz drained, unheated salmon with bones and skin
	14-3/4 oz can	9.09	1 oz heated fish	11.1	
	14-3/4 oz can	6.06	1-1/2 oz heated fish	16.6	
<b>Seafood, SARDINES, canned</b>					
Seafood, canned <b>Sardines</b> <i>Whole</i>	15 oz can	13.2	1 oz fish	7.6	15 oz can = about 13-1/4 oz drained sardines
	15 oz can	8.80	1-1/2 oz fish	11.4	
<b>Seafood, SCALLOPS, frozen</b>					
Seafood, frozen <b>Scallops</b>	Pound	8.48	1 oz cooked fish	11.8	1 lb AP = 0.53 lb cooked scallops
	Pound	5.65	1-1/2 oz cooked fish	17.7	
<b>Seafood, SHRIMP, fresh or frozen</b>					
Seafood, fresh or frozen <b>Shrimp</b> <i>In shell Deheaded Undeveined</i>	Pound	8.64	1 oz cooked fish	11.6	1 lb AP = 0.54 lb cooked shrimp
	Pound	5.76	1-1/2 oz cooked fish	17.4	
Seafood, fresh or frozen <b>Shrimp</b> <i>Peeled Undeined 60/70 count/lb (medium)</i>	Pound	11.5	1 oz cooked fish	8.7	1 lb AP = 0.72 lb cooked shrimp
	Pound	7.68	1-1/2 oz cooked fish	13.1	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>Seafood, SHRIMP, fresh or frozen (continued)</b>					
Seafood, fresh or frozen	Pound	9.92	1 oz cooked fish	10.1	1 lb AP = 0.62 lb cooked shrimp
<b>Shrimp</b> <i>Peeled Deveined</i>	Pound	6.61	1-1/2 oz cooked fish	15.2	
<b>Seafood, SHRIMP, COOKED, frozen</b>					
Seafood, cooked, frozen	Pound (frozen)	13.2	1 oz heated fish	7.6	1 lb AP = 0.83 lb thawed, ready-to-eat shrimp
<b>Shrimp</b> <i>Peeled Deveined</i>	Pound (frozen)	8.85	1-1/2 oz heated fish	11.3	
<i>All sizes except for salad size</i>	Pound (thawed)	16.0	1 oz heated fish	6.3	1 lb thawed = 1.00 lb ready-to-eat shrimp
	Pound (thawed)	10.6	1-1/2 oz heated fish	9.5	
Seafood, cooked, frozen	Pound (frozen)	12.8	1 oz heated fish	7.9	1 lb AP = 0.80 lb thawed shrimp
<b>Shrimp</b> <i>Peeled Deveined or Undeveloped</i>	Pound (frozen)	8.53	1-1/2 oz heated fish	11.8	
<i>Salad size (150-200 count/lb)</i>	Pound (thawed)	16.0	1 oz heated fish	6.3	1 lb thawed = 1.00 lb ready-to-eat shrimp
	Pound (thawed)	10.6	1-1/2 oz heated fish	9.5	
<b>Seafood, SHRIMP, canned</b>					
Seafood, canned	13-1/4 oz can (drained weight)	13.2	1 oz fish	7.6	1 can = 13-1/4 oz drained, shrimp
<b>Shrimp</b>	13-1/4 oz can (drained weight)	8.80	1-1/2 oz fish	11.4	
<b>Seafood, SQUID, CALAMARI, frozen</b>					
Seafood, frozen	Pound	10.7	1 oz cooked fish	9.4	1 lb AP = 0.67 lb cooked squid
<b>Squid, Calamari</b> <i>Rings only</i>	Pound	7.14	1-1/2 oz cooked fish	14.1	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>Seafood, TUNA, canned</b>					
Seafood, canned <b>Tuna</b> <i>Chunk style</i> <i>Water packed</i> <i>Includes USDA Commodity</i>	66-1/2 oz can	51.2	1 oz drained fish	2.0	66-1/2 oz can = about 51.2 oz drained tuna
	66-1/2 oz can	34.1	1-1/2 oz drained fish	3.0	
	12 oz can	10.5	1 oz drained fish	9.6	12 oz can = about 10.5 oz drained tuna
	12 oz can	7.00	1-1/2 oz drained fish	14.3	
	6 oz can	5.26	1 oz drained fish	19.2	6 oz can = about 5.2 oz drained tuna
	6 oz can	3.50	1-1/2 oz drained fish	28.8	
Seafood, canned <b>Tuna</b> <i>Solid</i> <i>Water packed</i>	66-1/2 oz can	50.5	1 oz drained fish	2.0	66-1/2 oz can = about 50.5 oz drained tuna
	66-1/2 oz can	33.6	1-1/2 oz drained fish	3.0	
	12 oz can	10.4	1 oz drained fish	9.7	12 oz can = about 10.4 oz drained tuna
	12 oz can	6.95	1-1/2 oz drained fish	14.4	
	6 oz can	5.40	1 oz drained fish	18.6	6 oz can = about 5.4 oz drained tuna
	6 oz can	3.60	1-1/2 oz drained fish	27.8	
Seafood, canned <b>Tuna</b> <i>Grated or Flake</i>	60 oz can	55.0	1 oz drained fish	1.9	60 oz can = about 55.0 oz drained tuna
	60 oz can	36.6	1-1/2 oz drained fish	2.8	
	6 oz can	5.40	1 oz drained fish	18.6	6 oz can = about 5.4 oz drained tuna
	6 oz can	3.60	1-1/2 oz drained fish	27.8	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### SEEDS<sup>39</sup>

SEEDS <sup>39</sup>					
Seeds <sup>39</sup> <b>Pumpkin and Squash Shelled</b>	Pound	16.0	1 oz seeds	6.3	1 lb = about 2 cups pumpkin or squash seeds
Seeds <sup>39</sup> <b>Sesame</b>	Pound	16.0	1 oz seeds	6.3	1 lb = about 3-1/8 cups sesame seeds
Seeds <sup>39</sup> <b>Sunflower Shelled</b>	Pound	16.0	1 oz seeds	6.3	1 lb = about 3-1/2 cups sunflower seeds

### TURKEY, FRESH OR FROZEN

TURKEY, WHOLE, fresh or frozen					
<b>Turkey, Whole, fresh or frozen</b> <i>Without neck and Giblets</i> <i>Includes USDA Commodity</i>	Pound	8.48	1 oz cooked turkey with skin	11.8	1 lb AP = 0.53 lb cooked turkey with skin
	Pound	5.65	1-1/2 oz cooked turkey with skin	17.7	
	Pound	7.52	1 oz cooked turkey without skin	13.3	1 lb AP = 0.47 lb cooked turkey without skin
	Pound	5.01	1-1/2 oz cooked turkey without skin	20.0	
<b>Turkey, Whole, fresh or frozen</b> <i>With Neck and Giblets</i>	Pound	7.68	1 oz cooked turkey with skin without meat from neck and giblets	13.1	1 lb AP = 0.48 lb cooked turkey with skin without meat from neck and giblets
	Pound	5.12	1-1/2 oz with skin without meat from neck and giblets	19.6	
	Pound	6.72	1-1/2 oz cooked turkey without skin, giblets, and meat from neck	14.9	1 lb AP = 0.42 lb cooked turkey without skin, giblets and meat from neck
	Pound	4.48	1-1/2 oz without skin, giblets and meat from neck	22.4	

<sup>39</sup> Nuts and seeds are generally not recommended to be served to children ages 1-3 since they present a choking hazard. If served, nuts and seeds should be finely minced.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>TURKEY PARTS, fresh or frozen</b>					
Turkey parts, fresh or frozen <b>Turkey Backs</b> <i>With bone</i> <i>Ready-to-cook</i>	Pound	6.88	1 oz cooked turkey with skin	14.6	1 lb AP = 0.43 lb cooked turkey with skin
	Pound	4.58	1-1/2 oz cooked turkey with skin	21.9	
	Pound	5.44	1 oz cooked turkey without skin	18.4	1 lb AP = 0.34 lb cooked turkey without skin
	Pound	3.62	1-1/2 oz cooked turkey without skin	27.7	
Turkey parts, fresh or frozen <b>Turkey Breasts</b> <i>Whole or Halves</i> <i>With bone</i>	Pound	10.2	1 oz cooked turkey with skin	9.9	1 lb AP = 0.64 lb cooked turkey with skin
	Pound	6.82	1-1/2 oz cooked turkey with skin	14.7	
	Pound	9.12	1 oz cooked turkey without skin	11.0	1 lb AP = 0.57 lb cooked turkey without skin
	Pound	6.08	1-1/2 oz cooked turkey without skin	16.5	
Turkey parts, fresh or frozen <b>Turkey Drumsticks</b> <i>With bone</i>	Pound	7.68	1 oz cooked turkey with skin	13.1	1 lb AP = 0.48 lb cooked turkey with skin
	Pound	5.12	1-1/2 oz cooked turkey with skin	19.6	
	Pound	7.04	1 oz cooked turkey without skin	14.3	1 lb AP = 0.44 lb cooked turkey without skin
	Pound	4.69	1-1/2 oz cooked turkey without skin	21.4	
Turkey parts, fresh or frozen <b>Turkey Halves</b> <i>With bone</i>	Pound	8.48	1 oz cooked turkey with skin	11.8	1 lb AP = 0.53 lb cooked turkey with skin
	Pound	5.65	1-1/2 oz cooked turkey with skin	17.7	
	Pound	7.36	1 oz cooked turkey without skin	13.6	1 lb AP = 0.46 lb cooked turkey without skin
	Pound	4.90	1-1/2 oz cooked turkey without skin	20.5	

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>TURKEY PARTS, fresh or frozen (continued)</b>					
Turkey parts, fresh or frozen <b>Turkey Leg Quarters</b> <i>With bone</i>	Pound	8.48	1 oz cooked turkey with skin	11.8	1 lb AP = 0.53 lb cooked turkey with skin
	Pound	5.65	1-1/2 oz cooked turkey with skin	17.7	
	Pound	7.68	1 oz cooked turkey without skin	13.1	1 lb AP = 0.48 lb cooked turkey without skin
	Pound	5.12	1-1/2 oz cooked turkey without skin	19.6	
Turkey parts, fresh or frozen <b>Turkey Necks</b> <i>With bone</i>	Pound	7.68	1 oz cooked turkey	13.1	1 lb AP = 0.48 lb cooked turkey
	Pound	5.12	1-1/2 oz cooked turkey	19.6	
Turkey parts, fresh or frozen <b>Turkey Thighs</b> <i>With bone</i>	Pound	8.64	1 oz cooked turkey with skin	11.6	1 lb AP = 0.54 lb cooked turkey with skin
	Pound	5.76	1-1/2 oz cooked turkey with skin	17.4	1 lb AP = 0.50 lb cooked turkey without skin
	Pound	8.00	1 oz cooked turkey without skin	12.5	
	Pound	5.33	1-1/2 oz cooked turkey without skin	18.8	
Turkey parts, fresh or frozen <b>Turkey Wings</b> <i>With bone</i> <i>Whole</i>	Pound	5.28	1 oz cooked turkey without skin	19.0	1 lb AP = 0.33 lb cooked turkey without skin
	Pound	3.52	1-1/2 oz cooked turkey without skin	28.5	
<b>TURKEY ROAST, frozen<sup>40</sup></b>					
<b>Turkey Roast, frozen<sup>40</sup></b> <i>Without bone</i> <i>USDA Commodity only</i>	Pound	10.5	1 oz cooked turkey with skin	9.6	1 lb AP = 0.66 lb cooked turkey with skin
	Pound	7.04	1-1/2 oz cooked turkey with skin	14.3	

<sup>40</sup> Turkey Roast, USDA Commodity, frozen, is based on USDA Specification for Frozen Turkey Roast which contains a minimum of 92.5 percent turkey.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
TURKEY, BONELESS, fresh or frozen					
Turkey, Boneless, fresh or frozen <i>With skin in natural proportions</i>	Pound	11.2	1 oz cooked turkey with skin	9.0	1 lb AP = 0.70 lb cooked turkey with skin
	Pound	7.46	1-1/2 oz cooked turkey with skin	13.5	
TURKEY BURGERS, frozen					
Turkey Burgers, frozen <i>100% ground turkey 3 oz raw weight USDA Commodity only</i>	1 pound	5.33	One 3-oz raw turkey burger when cooked provides 2.0 oz cooked turkey	18.8	
	6 lb pkg	32.0	One 3-oz raw turkey burger when cooked provides 2.0 oz cooked turkey	3.2	
TURKEY GIBLETS, fresh or frozen					
Turkey Giblets, fresh or frozen <b>Gizzards</b>	Pound	9.12	1 oz cooked turkey	11.0	1 lb AP = 0.57 lb cooked whole gizzards
	Pound	6.08	1-1/2 oz cooked turkey	16.5	
Turkey Giblets, fresh or frozen <b>Hearts</b>	Pound	9.12	1 oz cooked turkey	11.0	1 lb AP = 0.57 lb cooked hearts
	Pound	6.08	1-1/2 oz cooked turkey	16.5	
Turkey giblets, fresh or frozen <b>Livers</b>	Pound	11.5	1 oz cooked turkey	8.7	1 lb AP = 0.72 lb cooked livers
	Pound	7.68	1-1/2 oz cooked turkey	13.1	
TURKEY, GROUND, fresh or frozen					
Turkey, Ground, fresh or frozen <i>With skin in natural proportions Includes USDA Commodity</i>	Pound	11.2	1 oz cooked turkey	9.0	1 lb AP = 0.70 lb cooked, drained turkey
	Pound	7.46	1-1/2 oz cooked turkey	13.5	
	10 lb pkg	112.0	1 oz cooked turkey	0.90	
	10 lb pkg	74.6	1-1/2 oz cooked turkey	1.4	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### TURKEY, COOKED

#### TURKEY, canned

Turkey, canned <b>Boned Turkey</b>	Pound	14.0	1 oz cooked turkey with skin	7.2	1 lb AP = 0.88 lb cooked turkey with skin
	Pound	9.38	1-1/2 oz cooked turkey with skin	10.7	
Turkey, canned <b>Boned Turkey</b> <i>Solid pack</i>	Pound	14.8	1 oz cooked turkey with skin	6.8	1 lb AP = 0.93 lb cooked turkey with skin
	Pound	9.92	1-1/2 oz cooked turkey with skin	10.1	
Turkey, canned <b>Boned Turkey</b> <i>With Broth</i>	Pound	12.4	1 oz cooked turkey with skin	8.1	1 lb AP = 0.78 lb cooked turkey with skin
	Pound	8.32	1-1/2 oz cooked turkey with skin	12.1	

#### TURKEY, COOKED, frozen

Turkey, cooked, frozen <b>Diced or pulled</b> <i>Light and dark meat in natural proportions (no skin, wing meat, neck meat, giblets or kidneys)</i>	Pound	16.0	1 oz cooked turkey	6.3	1 lb AP = 1.00 lb (about 2-3/4 cups) cooked turkey
	Pound	10.6	1-1/2 oz cooked turkey	9.5	

#### TURKEY HAM, Fully cooked, chilled or frozen<sup>41</sup>

Turkey Ham, Fully cooked, chilled or frozen <sup>41</sup> <i>Includes USDA Commodity</i>	Pound	11.2	1.4 oz serving (1 oz cooked turkey)	9.0	1 lb AP = 0.70 lb cooked turkey
	Pound	7.46	2.1 oz serving (1-1/2 oz cooked turkey)	13.5	

#### TURKEY PRODUCTS, canned or frozen<sup>42, 43</sup>

Turkey Products <b>Creamed Turkey</b> <sup>42, 43</sup>	Pound	2.30	3/4 cup serving (about 1.3 oz cooked turkey)	43.5	1 lb AP = 0.20 lb cooked turkey
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<sup>41</sup> Turkey ham is based on USDA, FSIS Standard as published in the Code of Federal Regulations, Title 9, Part 381.171.

<sup>42</sup> Yield data is based on minimum percent meat as required by FSIS standard of identity regulations found in 9 CFR.

<sup>43</sup> Purchasers of this product will need to ensure that the name of the food on the product label exactly matches the "As Purchased" description in Column 1.

## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### TURKEY PRODUCTS, canned or frozen<sup>42, 43</sup> (continued)

Turkey Products <b>Turkey A La King</b> <sup>42, 43</sup>	Pound	2.30	3/4 cup serving (about 1.3 oz cooked turkey)	43.5	1 lb AP = 0.20 lb cooked turkey
Turkey Products <b>Turkey Barbecue, minced</b> <sup>42, 43</sup>	Pound	3.50	1/2 cup serving (about 1.8 oz cooked turkey)	28.6	1 lb AP = 0.40 lb cooked turkey
Turkey Products <b>Turkey Chili</b> <sup>42, 43</sup>	Pound	2.30	3/4 cup serving (about 1.9 oz cooked turkey)	43.5	1 lb AP = 0.28 lb cooked turkey
Turkey Products <b>Turkey Chili with Beans</b> <sup>42, 43</sup>	Pound	2.62	2/3 cup serving (about 1.0 oz cooked turkey)	38.2	1 lb AP = 0.17 lb cooked turkey
Turkey Products <b>Turkey Hash</b> <sup>42, 43</sup>	Pound	2.60	2/3 cup serving (about 1.8 oz cooked turkey)	38.5	1 lb AP = 0.30 lb cooked turkey
Turkey Products <b>Turkey Salad</b> <sup>42, 43</sup>	Pound	3.46	1/2 cup serving (about 1.1 oz cooked turkey)	29.0	1 lb AP = 0.25 lb cooked turkey
Turkey Products <b>Turkey with Gravy</b> <sup>42, 43</sup>	Pound	5.30	1/3 cup serving (about 1.0 oz cooked turkey)	18.9	1 lb AP = 0.35 lb cooked turkey
Turkey Products <b>Turkey with Noodles or Dumplings</b> <sup>42, 43</sup>	Pound	1.70	1 cup serving (about 1.4 oz cooked turkey)	58.9	1 lb AP = 0.15 lb cooked turkey

### TURTLE BEANS [see BEANS, BLACK (TURTLE)]

## VEAL, FRESH OR FROZEN

### VEAL, CUTLETS, fresh or frozen

<b>Veal, Cutlets, fresh or frozen</b>	Pound	8.64	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
<i>Cutlets from leg</i>	Pound	5.76	1-1/2 oz cooked lean meat	17.4	
<i>Without bone</i>					

### VEAL, GROUND, fresh or frozen

<b>Veal, Ground, fresh or frozen</b>	Pound	12.6	1 oz cooked lean meat	8.0	1 lb AP = 0.79 lb cooked lean meat
<i>No more than 16% fat</i>	Pound	8.42	1-1/2 oz cooked lean meat	11.9	

<sup>42</sup> Yield data is based on minimum percent meat as required by FSIS standard of identity regulations found in 9 CFR.

<sup>43</sup> Purchasers of this product will need to ensure that the name of the food on the product label exactly matches the "As Purchased" description in Column 1.



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
VEAL, HEART, fresh or frozen					
Veal, Heart, fresh or frozen Trimmed	Pound	9.44	1 oz cooked lean meat	10.6	1 lb AP = 0.59 lb cooked heart
	Pound	6.29	1-1/2 oz cooked lean meat	15.9	
VEAL, LIVER, fresh or frozen					
Veal, Liver, fresh or frozen Trimmed	Pound	10.8	1 oz cooked lean meat	9.3	1 lb AP = 0.68 lb cooked liver
	Pound	7.25	1-1/2 oz cooked lean meat	13.8	
VEAL, ROAST, fresh or frozen					
Veal, Roast, fresh or frozen Chuck roast Without bone	Pound	9.44	1 oz cooked lean meat	10.6	1 lb AP = 0.59 lb cooked lean meat
	Pound	6.29	1-1/2 oz cooked lean meat	15.9	
Veal, Roast, fresh or frozen Leg roast Without bone	Pound	9.76	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked lean meat
	Pound	6.50	1-1/2 oz cooked lean meat	15.4	
VEAL, STEAK, fresh or frozen					
Veal, Steak, fresh or frozen Flaked and formed 4 oz raw weight (Like IMPS #1338)	Pound	4.00	One 4.0 oz raw steak when cooked provides 2.7 oz cooked lean meat	25.0	1 lb AP = 0.69 lb cooked lean meat
	Pound	11.0	1 oz cooked meat	9.1	
	Pound	7.36	1-1/2 oz cooked meat	13.6	
VEAL, STEW MEAT, fresh or frozen					
Veal, Stew Meat, fresh or frozen Without bone	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked lean meat
	Pound	6.93	1-1/2 oz cooked lean meat	14.5	



## Section 1—Meat/Meat Alternates

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>YOGURT<sup>44</sup></b>					
<b>Yogurt, fresh<sup>44</sup></b> <i>Plain or Flavored Sweetened or Unsweetened – Commercially- prepared</i>	32 oz container	8.00	1/2 cup or 4 oz yogurt (1 oz meat alternate)	12.5	
	32 oz container	5.33	3/4 cup or 6 oz yogurt (1-1/2 oz meat alternate)	18.8	
	32 oz container	4.00	1 cup or 8 oz yogurt (2 oz meat alternate)	25.0	
	4 oz container	1.00	One 4 oz container yogurt (1/2 oz meat alternate)	100.0	
	6 oz container	1.00	One 6 oz container yogurt (1-1/2 oz meat alternate)	100.0	
	8 oz container	1.00	One 8 oz container yogurt (2 oz meat alternate)	100.0	

<sup>44</sup> Creditable yogurt is defined in the Child Nutrition regulations under 7 CFR Parts 210.2, 220.2(bb), 226.2, and 225.2.

**2**

# Vegetables/ Fruits



- 2-1 Requirements
- 2-2 Crediting of Fruits and Vegetables
- 2-3 Crediting of Vegetable and Fruit Concentrates
- 2-4 Factors Affecting Yields
- 2-4 Definitions
- 2-4 Products That Do Not Meet Requirements
- 2-5 Information Included in this Section
- 2-5 Explanation of the Columns
- 2-7 Yield Data Table for Vegetables/Fruits





# Vegetables/ Fruits

## Requirements

Regulations for the Child Nutrition Programs require that each reimbursable breakfast, lunch, or supper served contain vegetables and/or fruits. Vegetables and fruits may also be served as part of reimbursable snacks for the National School Lunch, Child and Adult Care Food, or Summer Food Service Programs. The food pattern requirements are described in the Meal Pattern Charts on pages I-7 through I-27.



### Specific requirements:

- Two or more servings of *different* vegetables and/or fruits must be served to meet the vegetable/fruit requirement at lunch and/or supper.
- You may not count any single fruit or vegetable as a serving unless it provides at least 1/8 cup. The importance of adequate and recognizable amounts of fruits and vegetables must be considered in menu planning in order to ensure a well-balanced meal and to illustrate healthy choices from the Food Guide Pyramid.
- Any liquid or frozen product labeled “juice,” “full-strength juice,” “single-strength juice,” or “reconstituted juice” is considered full-strength juice. To be used in meeting a part of the vegetable/fruit requirement for lunches and snacks, the product must contain a minimum of 50 percent full-strength juice. Only the amount of full strength juice contained in a juice drink product is creditable.
- Only 100-percent full-strength juice may be used in a breakfast. This means that 50% juice drink products may not be served as part of a reimbursable breakfast meal.
- For lunch or supper you may meet no more than 1/2 of the total requirement with full-strength vegetable or fruit juice. Full-strength juice may be used to meet the total requirement for breakfast or as one component of a snack.
- You may not serve juice if you serve milk as the only other component of a snack.
- You may count a serving of cooked dry beans or peas as a vegetable or as a meat alternate, but not as both components in the same meal.

- Menu items that are mixtures, for example fruit cocktail and mixed vegetables, only count as one vegetable/fruit serving.
- Large combination vegetable/fruit salads, served as an entrée containing at least 3/4 cup or more of two or more different vegetables/fruits in combination with a meat/meat alternate, such as a chef's salad or a fruit plate with cottage cheese, are considered as two or more servings of the vegetable/fruit component and will meet the full requirement. If only two vegetables/fruits are included in the salad, the second vegetable/fruit must contain a minimum of 1/8 cup.



**To help meet nutritional standards and/or goals, and respond to dietary guidelines, USDA recommends that:**

- meals include a vitamin A-rich vegetable or fruit at least two to three times a week;
- meals include a vitamin C-rich vegetable or fruit three to four times a week, and breakfasts include them frequently;
- meals include a variety of vegetables and fruits; and
- meals include foods that are good sources of fiber, such as fresh fruits and vegetables and whole grain products.

For further information refer to the appropriate program planning guide: *Menu Planner for Healthy School Meals* (FNS-303); *Building Blocks for Fun and Healthy Meals - A Menu Planner for the CACFP* (FNS-305); or the *Sponsor Meal Preparation Handbook for the Summer Food Service Program* (FNS-207).

## **Crediting of Fruits and Vegetables**

- A serving of cooked vegetable is considered to be *drained*. If it is a canned, heated vegetable, use the listing in Column 4 that reads "1/4 cup heated, drained vegetable." If it is served unheated, the appropriate listing is "1/4 cup drained vegetable."
- A serving of raw vegetable used in salads with dressing is shown as "1/4 cup raw vegetable (pieces, shredded, chopped) with dressing."
- A serving of canned fruit (as described in Column 4) may include the juice or syrup in which the fruit is packed. Serving information is also provided for drained fruit.



## Crediting of Vegetable and Fruit Concentrates

- A serving of fruit consists of fruit and juice or syrup even where it is only described as “cooked.”
- A serving of thawed frozen fruit consists of fruit plus the juice or syrup that accumulated during thawing.

Vegetable and fruit concentrates are allowed to be credited on an “as if single-strength reconstituted basis” rather than on the actual volume as served. See the examples that follow:

### How to Use Information on Concentrates:

**Method 1** – Multiply the number of pounds of concentrate used by the creditable 1/4-cup servings per pound of concentrate.

Example: A recipe calls for 4 lb 12 oz (4.75 lb) of tomato paste. Each pound of tomato paste provides 27.6 creditable servings of vegetable. Thus,  $4.75 \times 27.6 = 131.1$  servings. Therefore, the tomato paste in the recipe provides 131.1 creditable 1/4-cup servings of vegetable.

**Method 2** – Multiply the number of No. 10 cans of concentrate in the recipe by the number of creditable 1/4-cup servings provided by one No. 10 can of the concentrate.

Example: Two No. 10 cans of tomato puree are used in a recipe. One No. 10 can of tomato puree provides 96 creditable 1/4-cup servings of vegetable. Thus,  $2 \times 96 = 192$ . Therefore, 192 creditable 1/4-cup servings would be provided by the two No. 10 cans of tomato puree.

*Yield figures for vegetables and fruits are for on-site preparation. They do **not** allow for losses that may occur in prepared products (both preportioned and bulk) during freezing, storage, heating, and serving. Other factors may affect yields: quality and condition of the food, storage conditions, handling procedures, equipment used in preparation, cooking and holding times, serving utensils, and portion control.*





## Factors Affecting Yields

Yields of vegetables and fruits vary according to the form of food used. For example:

- Frozen vegetables usually yield more servings per pound than fresh vegetables since the frozen ones are cleaned, blanched, and ready to cook.
- Dehydrated vegetables and fruits yield more servings per pound than fresh, frozen, or canned because they gain weight and volume as they absorb water during soaking and cooking. Some dehydrated products, particularly fruits, continue to expand while cooling.
- The weight of canned vegetables and fruits varies due to different densities of the food. A No. 10 can yields an average of 12 to 13-2/3 cups, from 96 oz (6 lb) to 117 oz (7 lb 5 oz).

## Definitions

- **Count** – The number of whole fruits or vegetables contained or packed in a specific container. The higher the count, the smaller the size of each fruit or vegetable.
- **Pared** – When the outer covering (skin or peel) of a fruit or vegetable has been removed.
- **Tempered** – Frozen fruit or vegetable brought to room temperature; thawed but not heated.
- **Size** – The number of pieces of whole fruits or vegetables in 10 pounds of product.
- **Unpared** – When the outer covering (skin or peel) of a fruit or vegetable has not been removed.

## Products That Do Not Meet Requirements

The following products **do not qualify** as vegetable or fruit and may **not** be credited toward meeting the vegetable/fruit requirement in any meal served under the Child Nutrition Programs:

- snack-type foods made from vegetables or fruits, such as potato chips, banana chips, or popcorn;
- pickle relish, jam, or jelly;
- tomato catsup and chili sauce;
- home canned products (for food safety reasons); or
- dehydrated vegetables used for seasoning.

Information Included in this Section

Over 700 entries for vegetables and fruits—fresh, canned, frozen, and dehydrated—are listed alphabetically. Data for canned and frozen juices and canned soups are also provided in this section.

Vegetable and fruit information includes:

- yield information on common institutional packs, smaller packs, and 1-pound units of many fresh, canned, and frozen vegetables and fruits;
- whenever available, data on unsweetened canned and frozen fruits or those packed in juice, light syrup, or water;
- net weight of contents of the can (including liquid) under the can size in Column 2, except where noted;
- minimum weight and volume of drained vegetables or fruits in Column 6;
- yields in terms of 1/4-cup servings, unless noted;
- contribution to the meal patterns;
- yield information on juice concentrates, tomato paste, and tomato puree as if reconstituted to full strength;
- yield information on canned soups that contain at least 1/4 cup of vegetable per cup of soup; and
- yield information for all vegetables/fruits based on *volume*, not weight. This includes dry or dehydrated fruits and vegetables.

Explanation of the Columns

The data on vegetables and fruits in the following table include yield information on *common types* and *customary serving sizes* of products that you can buy on the market as well as some USDA Commodity products.

Column 1	<b>Food As Purchased, AP:</b> The individual foods are arranged in alphabetical order.
Column 2	<b>Purchase Unit:</b> The purchase unit is specified, such as, 1 can (generally No. 10, No. 2-1/2, or No. 300), 1 pound, or 1 package. You can use data for one purchase unit to determine how much you need for any number of servings.
Column 3	<b>Servings per Purchase Unit EP (Edible Portion):</b> This column shows the number of servings of a given size (found in Column 4) from each purchase unit (found in Column 2). Numbers in this column are sometimes rounded <i>down</i> in order to help ensure enough food for the number of servings.

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- Column 4    **Serving Size per Meal Contribution:** The size of a serving is given as a measure and/or weight or number of pieces. In most cases the serving size and contribution to the meal pattern are the same. When they differ, the contribution is shown in parentheses under the serving size.
- Column 5    **Purchase Units for 100 Servings:** This column shows the number of purchase units (found in Column 2) you need for 100 servings. Numbers in this column are generally rounded *up* in order to ensure enough food is purchased for the number of servings.
- Column 6    **Additional Information:** This column gives other information to help you calculate the amount of food you need to prepare meals.



# Food Buying Guide for Child Nutrition Programs

## Section 2 Vegetables/Fruits

### Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>APPLES</b>					
<b>Apples, fresh</b> 125-138 count Whole	Pound	14.8	1/4 cup raw, unpeeled fruit (about 1/4 apple)	6.8	1 lb AP = 0.91 lb (3-2/3 cups) ready-to-cook or -serve raw, cored, unpeeled apple
	Pound	3.00	1 baked apple (about 1/2 cup cooked fruit)	33.4	
	Pound	11.4	1/4 cup raw, cored, peeled fruit	8.8	1 lb AP = 0.78 lb (about 2-3/4 cups) ready-to-cook or -serve raw, cored, peeled apple
	Pound	6.80	1/4 cup cored, peeled, cooked, unsweetened fruit	14.8	1 lb AP = 0.78 lb (about 1-3/4 cups) cored, peeled, cooked apple
	Pound	5.80	1/4 cup cooked, sieved unsweetened fruit	17.3	
<b>Apples, fresh</b> 100 count Whole	Pound	15.6	1/4 cup raw, unpeeled fruit (about 1/5 apple)	6.5	1 lb AP = 0.93 lb (about 3-7/8 cups) ready-to-cook or -serve raw, cored, unpeeled apple
<b>Apples, canned</b> Slices Solid pack Includes USDA Commodity	No. 10 can (100 oz)	50.4	1/4 cup fruit and juice	2.0	1 No. 10 can = about 89.0 oz (11-7/8 cups) drained apple
	Pound	8.06	1/4 cup fruit and juice	12.5	
<b>Apples, frozen</b> Sliced, IQF Includes USDA Commodity	Pound	12.7	1/4 cup tempered fruit	7.9	1 lb AP = 0.99 lb (about 3-1/8 cups) tempered ready to-cook or serve apples
	Pound	8.80	1/4 cup heated fruit	11.4	
<b>Apples, dehydrated</b> Slices or Rings Regular moisture	Pound	21.1	1/4 cup dehydrated fruit	4.8	1 lb AP = about 5-1/4 cups dehydrated apple
	Pound	28.7	1/4 cup cooked fruit	3.5	

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<b>APPLESAUCE</b>					
<b>Applesauce, canned</b> <i>Smooth or Chunky</i> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	47.6	1/4 cup fruit	2.2	1 No. 10 can = about 12 cups applesauce
	No. 2-1/2 can (29 oz)	12.8	1/4 cup fruit	7.9	1 No. 2-1/2 can = about 3-1/8 cups applesauce
	23 oz jar	10.1	1/4 cup fruit	10.0	
<b>APRICOTS</b>					
<b>Apricots, fresh</b> <i>Medium</i> <i>(approx. 1-3/8 inch diameter)</i> <i>Whole</i>	Pound	11.9	1/4 cup fruit (about 1 whole, medium, raw apricot)	8.5	1 lb AP = 0.93 lb ready-to-serve raw apricots
	Pound	10.8	1/4 cup raw, seeded and unpeeled fruit halves	9.3	
<b>Apricots, canned</b> <i>Diced</i> <i>Includes USDA Commodity</i>	1 No. 10 can (108 oz)	48.0	1/4 cup fruit and juice	2.1	1 No. 10 can = about 12 cups fruit and juice
<b>Apricots, canned</b> <i>Halves</i> <i>Unpeeled</i>	No. 10 can (106 oz)	48.0	1/4 cup fruit and juice	2.1	1 No. 10 can = about 62.0 oz (7-1/3 cups) drained apricots
	No. 2-1/2 can (29 oz)	13.2	1/4 cup fruit and juice	7.6	1 No. 2-1/2 can = about 16.0 oz (1-7/8 cups) drained apricots
	No. 300 can (15-1/4 oz)	6.54	1/4 cup fruit and juice	15.3	
	No. 300 can (15-1/4 oz)	6.08	1/4 cup heated, drained fruit	16.5	
<b>Apricots, canned</b> <i>Slices</i> <i>Peeled</i>	No. 10 can (106 oz)	45.7	1/4 cup fruit and juice	2.2	1 No. 10 can = about 62.0 oz (7-2/3 cups) drained apricots
	No. 2-1/2 can (29 oz)	12.5	1/4 cup fruit and juice	8.0	1 No. 2-1/2 can = about 17.2 oz (2 cups) drained apricots
	Pound	6.90	1/4 cup fruit and juice	14.5	1 lb AP = about 8.9 oz (1-1/8 cups) drained apricots

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<b>APRICOTS (continued)</b>					
<b>Apricots, canned</b> <i>Whole With pits Peeled</i>	No. 10 can (106 oz)	44.2	1/4 cup pitted fruit and juice	2.3	1 No. 10 can = about 52.0 oz (7-1/4 cups) drained, pitted apricots
	No. 2-1/2 can (29 oz)	12.1	1/4 cup pitted fruit and juice	8.3	1 No. 2-1/2 can = about 12.4 oz (1-3/4 cups) drained, pitted apricots
	Pound	6.67	1/4 cup pitted fruit and juice	15.0	1 lb AP = about 6.9 oz (1 cup) drained, pitted apricots
<b>Apricots, canned</b> <i>Whole With pits Unpeeled</i>	No. 10 can (106 oz)	43.6	1/4 cup pitted fruit and juice	2.3	1 No. 10 can = about 53.0 oz (6-1/3 cups) drained, pitted apricots
	No. 2 can (29 oz)	11.9	1/4 cup pitted fruit and juice	8.5	1 No. 2-1/2 can = about 12.8 oz (1-3/4 cups) drained pitted apricots
	Pound	6.58	1/4 cup pitted fruit and juice	15.2	1 lb AP = about 7.0 oz (7/8 cup) drained, pitted apricots
<b>Apricots, frozen</b> <i>Halves Unpeeled</i>	Pound	6.70	1/4 cup cooked fruit and juice	15.0	1 lb AP = 1-2/3 cups cooked fruit
	Pound	7.25	1/4 cup thawed fruit and juice	13.8	1 lb AP = 1-3/4 cups thawed fruit and juice
	Pound	4.90	1/4 cup thawed, drained fruit	20.5	1 lb AP = 1-1/8 cups thawed, drained fruit
<b>Apricots, frozen</b> <i>Sliced Unpeeled Includes USDA Commodity</i>	Pound	7.26	1/4 cup thawed fruit and juice	13.8	1 lb AP = 0.98 lb (about 1-3/4 cups) ready-to-serve, thawed, apricots with juice
	Pound	4.91	1/4 cup thawed, drained fruit	20.4	1 lb AP = 0.63 lb (about 1-1/8 cups) ready-to-serve, thawed, drained apricots
	20 lb bag	142.6	1/4 cup thawed fruit and juice	0.71	20 lb Bag = about 35-2/3 cups thawed apricots and juice
	20 lb bag	96.4	1/4 cup thawed, drained fruit	1.1	20 lb Bag = about 24-1/8 cups thawed, drained apricots



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<b>APRICOTS (continued)</b>					
<b>Apricots, dehydrated</b> <i>Halves</i> <i>Regular moisture</i>	Pound	11.3	9 medium dehydrated halves (1/4 cup fruit)	8.9	1 lb dry = about 2-7/8 cups or 100 apricot halves
	Pound	23.4	1/4 cup cooked fruit	4.3	
<b>ARTICHOKES</b>					
<b>Artichokes, fresh</b> <i>36 count (large)</i> <i>Untrimmed</i> <i>Whole</i>	Pound	1.49	1/4 cup cooked, drained vegetable from leaves	67.2	1 lb AP = 0.23 lb (about 1/3 cup) cooked, drained artichoke
	Pound	1.38	1/4 cup cooked, drained vegetable (bottoms only)	72.5	1 lb AP = about 1/3 cup cooked artichoke from bottoms only
	Pound	2.84	1/4 cup cooked, drained vegetable (bottoms & leaves)	35.3	1 lb AP = about 2/3 cup cooked, drained artichoke bottoms and leaves
<b>Artichokes, canned</b> <i>Bottoms</i>	No. 300 can (14 oz)	5.97	1/4 cup drained vegetable	16.8	1 No. 300 can = about 7.7 oz (1-3/8 cups) drained, unheated artichoke
<b>Artichokes, canned</b> <i>Hearts</i>	No. 300 can (14 oz)	4.67	1/4 cup drained vegetable	21.5	1 No. 300 can = about 8.0 oz (1-1/8 cups) drained, unheated artichoke
<b>Artichokes, frozen</b> <i>Hearts</i>	Pound	10.0	1/4 cup cooked, drained vegetable	10.0	1 lb AP = 0.99 lb (about 2-1/2 cups) cooked, drained artichoke
<b>ASPARAGUS</b>					
<b>Asparagus, fresh</b> <i>Whole</i>	Pound	4.80	1/4 cup cooked vegetable	20.9	1 lb AP = 0.53 lb ready-to-cook trimmed, raw asparagus
	Pound	4.80	1/4 cup cooked cuts and tips (1/4 cup vegetable)	20.9	1 lb AP = 0.50 lb cooked asparagus

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<b>ASPARAGUS (continued)</b>					
<b>Asparagus, canned</b> <i>Cuts and Tips</i>	No. 10 can (103 oz)	27.8	1/4 cup heated, drained vegetable	3.6	1 No. 10 can = about 57.3 oz (6-7/8 cups) heated, drained asparagus
	No. 10 can (103 oz)	32.4	1/4 cup drained vegetable	3.1	1 No. 10 can = about 57.1 oz (8 cups) drained, unheated asparagus
	No. 300 can (14-1/2 oz)	3.45	1/4 cup heated, drained vegetable	29.0	1 No. 300 can = about 6.8 oz (3/4 cup) heated, drained asparagus
	No. 300 can (14-1/2 oz)	4.83	1/4 cup drained vegetable	20.8	1 No. 300 can = about 8.7 oz (1-1/8 cups) drained, unheated asparagus
	Pound	4.31	1/4 cup heated, drained vegetable	23.3	
	Pound	5.03	1/4 cup drained vegetable	19.9	
<b>Asparagus, canned</b> <i>Spears</i>	No. 5 squat can (64 oz)	26.4	1/4 cup drained vegetable	3.8	1 No. 5 can = about 38.0 oz (6-2/3 cups) drained, unheated asparagus
	No. 300 can (15 oz)	3.87	1/4 cup heated, drained vegetable	25.9	1 No. 300 can = about 7.3 oz (7/8 cup) heated, drained asparagus
	No. 300 can (15 oz)	4.59	1/4 cup drained vegetable	21.8	1 No. 300 can = about 8.5 oz (1-1/8 cups) drained, unheated asparagus
	Pound	6.60	1/4 cup drained vegetable	15.2	
<b>Asparagus, frozen</b> <i>Cuts and Tips</i>	Pound	8.10	1/4 cup cooked vegetable	12.4	
<b>Asparagus, frozen</b> <i>Spears</i>	Pound	10.7	1/4 cup cooked vegetable	9.4	
<b>AVOCADOS</b>					
<b>Avocados, fresh</b> <i>All sizes</i> <i>Whole</i>	Pound	8.20	1/4 cup raw, diced vegetable	12.2	1 lb AP = 0.67 lb ready-to-serve raw avocado
	Pound	5.10	1/4 cup raw, mashed vegetable	19.7	



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<b>AVOCADOS (continued)</b>					
<b>Avocados, fresh</b> <i>California</i> 48 count (approx. 2.5-inch width by 3.5-inch length) Whole	Pound	5.52	1/4 cup peeled, sliced, raw vegetable (about 3 slices) (3/8-inch by 3.5-inch slices)	18.2	1 lb AP = 0.69 lb ready-to-serve, raw, peeled avocado [about 2-2/3 portions (1/4 cup each portion) per avocado]
<b>Avocados, fresh</b> <i>Florida</i> (approx. 3.5-inch width by 4.75-inch length) Whole	Pound	7.07	1/4 cup peeled, sliced, raw vegetable (about 2 slices) (1/2-inch by 4.5-inch slices)	14.2	1 lb AP = 0.59 lb ready-to-serve, raw, peeled, sliced [about 7-1/2 portions (1/4 cup each portion) per avocado]
<b>BAMBOO SHOOTS</b>					
<b>Bamboo Shoots, canned</b> <i>Sliced</i>	No. 10 can (104 oz)	47.4	1/4 cup drained vegetable	2.2	1 No. 10 can = about 72.7 oz (11-3/4 cups) drained, unheated bamboo shoots
<b>BANANAS<sup>1</sup></b>					
<b>Bananas, fresh</b> 150 count <i>Petite</i> Whole	Pound	3.60	1 banana (about 3/8 cup fruit)	27.8	1 lb AP = 0.64 lb (about 1-5/8 cups) ready-to-serve banana slices
	Pound	6.51	1/4 cup sliced fruit	15.4	
<b>Bananas, fresh</b> 100-120 count <i>Regular</i> Whole	Pound	7.07	1/4 cup raw 1/2-inch sliced fruit	14.2	1 lb AP = 0.64 lb (about 1-3/4 cups) peeled 1/2-inch slices of banana
	Pound	5.39	1/4 cup raw fruit, unpeeled (about 1/2 banana)	18.6	
	Pound	5.20	1/4 cup mashed fruit	19.3	
<b>Bananas, canned</b> <i>Mashed</i>	No. 10 can (116 oz)	50.9	1/4 cup fruit	2.0	
	Pound	7.00	1/4 cup fruit	14.3	
<b>Bananas, dehydrated<sup>1</sup></b> <i>Slices</i> 100% dried fruit only	Pound	19.6	1/4 cup dehydrated fruit slices	5.2	1 lb AP = 1 lb (about 4-7/8 cups) ready-to-serve dehydrated banana

<sup>1</sup> Note: Fried banana chips are not creditable towards meal pattern requirements.



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<b>BEANS, BLACK (TURTLE BEANS)</b>					
<b>Beans, Black (Turtle beans), dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (110 oz)	27.8	1/4 cup heated, drained vegetable	3.6	1 No. 10 can = about 62.0 oz (6-7/8 cups) heated, drained beans
	No. 300 can (15-1/2 oz)	5.91	1/4 cup heated, drained vegetable	17.0	1 No. 300 can = about 10.5 oz (1-3/8 cups) heated, drained beans
<b>Beans, Black (Turtle beans), dry</b> <i>Whole</i>	Pound	18.3	1/4 cup cooked vegetable	5.5	1 lb dry = 2-1/4 cups dry beans
<b>BEANS, BLACK-EYED (or PEAS)</b>					
<b>Beans, Black-eyed (or Peas), fresh</b> <i>Shelled</i>	Pound	10.3	1/4 cup cooked, drained vegetable	9.8	1 lb in pod = 0.51 lb ready-to-cook beans
<b>Beans, Black-eyed (or Peas), dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	37.7	1/4 cup heated, drained vegetable	2.7	1 No. 10 can = about 65.0 oz (9-3/8 cups) heated, drained beans
	No. 300 can (15 oz)	4.91	1/4 cup heated, drained vegetable	20.4	
<b>Beans, Black-eyed (or Peas), frozen</b> <i>Whole</i>	Pound	11.2	1/4 cup cooked, drained vegetable	9.0	
<b>Beans, Black-eyed (or Peas), dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	28.3	1/4 cup cooked vegetable	3.6	1 lb dry = about 2-3/4 cups dry beans
<b>BEANS, GARBANZO or CHICKPEAS</b>					
<b>Beans, Garbanzo or Chickpeas, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	42.0	1/4 cup drained vegetable	2.4	1 No. 10 can = about 68.4 oz (10-1/2 cups) unheated, drained beans
	No. 300 can (15 oz)	6.70	1/4 cup drained vegetable	15.0	1 No. 300 can = about 9.6 oz (1-2/3 cups) unheated, drained beans
	Pound	6.31	1/4 cup drained vegetable	15.9	

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<b>BEANS, GARBANZO OR CHICKPEAS (continued)</b>					
<b>Beans, Garbanzo or Chickpeas, dry</b> <i>Whole</i>	Pound	24.6	1/4 cup cooked vegetable	4.1	1 lb dry = about 2-1/2 cups dry beans
<b>BEANS, GREAT NORTHERN</b>					
<b>Beans, Great Northern, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (110 oz)	32.4	1/4 cup heated, drained vegetable	3.1	1 No. 10 can = about 68.5 oz (about 8-1/8 cups) heated, drained beans
	No. 300 can (14 oz)	4.37	1/4 cup heated, drained vegetable	22.9	
<b>Beans, Great Northern, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	25.5	1/4 cup cooked vegetable	4.0	1 lb dry = about 2-1/2 cups dry beans
<b>BEANS, GREEN</b>					
<b>Beans, Green, fresh</b> <i>Trimmed</i> <i>Whole</i> <i>Ready-to-use</i>	Pound	22.0	1/4 cup whole, raw vegetable	4.6	1 lb AP = 1 lb (about 5-3/8 cups) ready-to-cook
	Pound	12.4	1/4 cup whole, cooked, drained vegetable	8.1	1 lb AP = 0.86 lb (about 3 cups) cooked, drained beans
	Pound	16.4	1/4 cup cut, raw vegetable	6.1	1 lb AP = 1 lb (about 4 cups) ready-to-cook beans
	Pound	11.2	1/4 cup cut, cooked, drained vegetable	9.0	1 lb AP = 0.89 lb (about 2-3/4 cups) cooked, drained, cut beans
<b>Beans, Green, fresh</b> <i>Untrimmed</i> <i>Whole</i>	Pound	11.1	1/4 cup whole, cooked vegetable	9.1	1 lb AP = 0.88 lb ready-to-cook beans

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<b>BEANS, GREEN (continued)</b>					
<b>Beans, Green, canned Cut</b> <i>Includes USDA Commodity</i>	No. 10 can (101 oz)	45.3	1/4 cup heated, drained vegetable	2.3	
	No. 10 can (101 oz)	51.1	1/4 cup drained vegetable	2.0	1 No. 10 can = about 60.0 oz (12-7/8 cups) drained, unheated beans
	No. 2-1/2 can (28 oz)	12.5	1/4 cup heated, drained vegetable	8.0	
	No. 2-1/2 can (28 oz)	14.1	1/4 cup drained vegetable	7.1	1 No. 2-1/2 can = about 16.0 oz (3-1/2 cups) drained, unheated beans
	No. 300 can (15 oz)	5.00	1/4 cup heated, drained vegetable	20.0	1 No. 300 can = about 7.4 oz (1-1/4 cups) heated, drained beans
	No. 300 can (15 oz)	5.77	1/4 cup drained vegetable	17.4	1 No. 300 can = about 7.7 oz (1-3/8 cups) drained, unheated beans
	Pound	7.17	1/4 cup heated, drained vegetable	14.0	
	Pound	8.10	1/4 cup drained vegetable	12.4	
<b>Beans, Green, canned French style</b> <i>Includes USDA Commodity</i>	No. 10 can (101 oz)	36.5	1/4 cup heated, drained vegetable	2.8	1 No. 10 can = about 59.0 oz (12 cups) drained, unheated beans
	No. 2-1/2 can (28 oz)	10.1	1/4 cup heated, drained vegetable	10.0	1 No. 2-1/2 can = about 16.2 oz (3-1/4 cups) heated, drained beans
	No. 300 can (14-1/2 oz)	3.60	1/4 cup heated, drained vegetable	27.8	1 No. 300 can = about 5.7 oz (7/8 cup) heated, drained beans
	No. 300 can (14-1/2 oz)	4.50	1/4 cup drained vegetable	22.3	1 No. 300 can = about 10.1 oz (1-1/8 cup) drained, unheated beans
	Pound	5.80	1/4 cup heated, drained vegetable	17.3	



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<b>Beans, Green, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (101 oz)	39.5	1/4 cup heated, drained vegetable	2.6	1 No. 10 can = about 58.0 oz (13 cups) drained, unheated beans
	No. 10 can (101 oz)	52.2	1/4 cup drained vegetable	2.0	
	No. 2-1/2 can (28 oz)	14.4	1/4 cup heated, drained vegetable	7.0	1 No. 2-1/2 can = about 16.0 oz (3-5/8 cups) drained, unheated beans
	No. 300 can (14-1/2 oz)	4.58	1/4 cup heated, drained vegetable	21.9	1 No. 300 can = about 7.3 oz (1-1/8 cups) heated, drained beans
	No. 300 can (14-1/2 oz)	6.95	1/4 cup drained vegetable	14.4	1 No. 300 can = about 7.6 oz (1-5/8 cups) drained, unheated beans
	Pound	8.20	1/4 cup drained vegetable	12.2	
<b>Beans, Green, frozen</b> <i>Cut</i> <i>Includes USDA Commodity</i>	Pound	11.6	1/4 cup cooked, drained vegetable	8.7	
<b>Beans, Green, frozen</b> <i>French style</i> <i>Includes USDA Commodity</i>	Pound	12.0	1/4 cup cooked, drained vegetable	8.4	
<b>Beans, Green, frozen</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	10.7	1/4 cup cooked, drained vegetable	9.4	1 lb AP = 0.88 lb (about 2-5/8 cups) cooked vegetable
<b>BEANS, GREEN, FLAT ITALIAN</b>					
<b>Beans, Green, Flat Italian, canned</b> <i>Whole</i>	No. 10 can (103 oz)	35.1	1/4 cup heated, drained vegetable	2.9	1 No. 10 can = about 56.6 oz (8-3/4 cups) heated, drained beans
	No. 10 can (103 oz)	42.7	1/4 cup drained vegetable	2.4	1 No. 10 can = about 63.3 oz (10-5/8 cups) drained, unheated beans

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<b>BEANS, GREEN, FLAT ITALIAN (continued)</b>					
<b>Beans, Green, Flat Italian, frozen</b> <i>Whole</i>	Pound	9.30	1/4 cup cooked, drained vegetable	10.8	1 lb AP = 0.91 lb (about 2-1/4 cups) cooked, drained beans
<b>BEANS, KIDNEY</b>					
<b>Beans, Kidney, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	38.9	1/4 cup heated, drained vegetable	2.6	1 No. 10 can = about 65.0 oz (9-5/8 cups) heated, drained beans
	No. 10 can (108 oz)	43.4	1/4 cup drained vegetable	2.4	1 No. 10 can = about 71.0 oz (10-3/4 cups) drained, unheated beans
	No. 2-1/2 can (30 oz)	11.6	1/4 cup heated, drained vegetable	8.7	
	No. 2-1/2 can (30 oz)	12.6	1/4 cup drained vegetable	8.0	
	No. 300 can (15-1/2 oz)	5.61	1/4 cup heated, drained vegetable	17.9	1 No. 300 can = about 9.5 oz (1-3/8 cups) heated, drained beans
	No 300 can (15-1/2 oz)	5.88	1/4 cup drained vegetable	17.1	1 No. 300 can = about 10.0 oz (1-3/8 cups) drained, unheated beans
<b>Beans, Kidney, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	24.8	1/4 cup cooked vegetable	4.1	1 lb dry = about 2-1/2 cups dry beans
<b>BEANS, LIMA</b>					
<b>Beans, Lima, fresh</b> <i>Shelled</i> <i>Whole</i>	Pound	10.8	1/4 cup cooked, drained vegetable	9.3	1 lb in pod = 0.44 lb ready-to-cook beans
<b>Beans, Lima, dry, canned</b> <i>Green</i> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	42.4	1/4 cup heated, drained vegetable	2.4	1 No. 10 can = about 70.9 oz (11-3/4 cup) drained, unheated beans
	No. 2-1/2 can (40 oz)	15.7	1/4 cup heated, drained vegetable	6.4	1 No. 2-1/2 can = about 27.0 oz (4-1/2 cups) drained, unheated beans
	Pound	6.46	1/4 cup heated, drained vegetable	15.5	1 lb AP = about 11.0 oz (1-3/4 cups) drained, unheated beans

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<b>BEANS, LIMA (continued)</b>					
<b>Beans, Lima, frozen</b> <i>Baby Whole</i>	Pound	10.9	1/4 cup cooked, drained vegetable	9.2	
<b>Beans, Lima, frozen</b> <i>Fordhook Whole</i>	Pound	11.1	1/4 cup cooked, drained vegetable	9.1	
<b>Beans, Lima, dry</b> <i>Baby Whole</i> <i>Includes USDA Commodity</i>	Pound	23.4	1/4 cup cooked vegetable	4.3	1 lb dry = about 2-3/8 cups dry beans
<b>Beans, Lima, dry</b> <i>Fordhook Whole</i>	Pound	27.0	1/4 cup cooked vegetable	3.8	1 lb dry = about 2-5/8 cups dry beans
<b>BEANS, MUNG</b>					
<b>Beans, Mung, dry</b> <i>Whole</i>	Pound	28.1	1/4 cup cooked vegetable	3.6	1 lb dry = about 2-1/4 cups dry beans
<b>BEANS, NAVY or PEA</b>					
<b>Beans, Navy or Pea, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	23.9	1/4 cup cooked vegetable	4.2	1 lb dry = about 2-1/4 cups dry beans
<b>BEANS, PINK</b>					
<b>Beans, Pink, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (110 oz)	34.0	1/4 cup heated, drained vegetable	3.0	1 No. 10 can = about 12-1/4 cups drained, unheated beans or 8-1/2 cups heated, drained beans
<b>Beans, Pink, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	19.3	1/4 cup cooked vegetable	5.2	1 lb dry = about 2-1/4 cups dry beans



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, PINTO<sup>2</sup></b>					
<b>Beans, Pinto, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	37.2	1/4 cup heated, drained vegetable	2.7	1 No. 10 can = about 67.4 oz (9-1/4 cups) heated, drained beans
	Pound	5.51	1/4 cup heated, drained vegetable	18.2	
<b>Beans, Pinto, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	21.0	1/4 cup cooked vegetable	4.8	1 lb dry = about 2-3/8 cups dry beans
<b>Beans, Pinto, dehydrated<sup>2</sup></b>	Pound	21.7	1/4 cup cooked vegetable	4.7	1 lb AP = about 3-3/4 dehydrated beans 1 lb AP = about 5-3/8 cups rehydrated, cooked beans when the water to dry beans ratio = 2:1
<b>BEAN PRODUCTS</b>					
Bean Products, dry beans, canned <b>Beans Baked or In Sauce</b> <b>Vegetarian</b> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	47.1	1/4 cup heated vegetable with sauce	2.2	No. 10 can = about 11-3/4 cups heated beans with sauce
	No. 300 can (16 oz)	6.94	1/4 cup heated vegetable with sauce	14.4	1 No. 300 can = about 1-3/4 cups heated beans with sauce
Bean Products, dry beans, canned <b>Beans Baked or in Sauce with Pork</b>	No. 10 can (110 oz)	48.9	1/4 cup heated vegetable	2.1	
	No. 2-1/2 can (30 oz)	13.3	1/4 cup heated vegetable	7.6	
	No. 300 can (16 oz)	7.10	1/4 cup heated vegetable	14.1	
<b>BEANS, REFRIED</b>					
<b>Beans, Refried, canned</b> <i>Includes USDA Commodity</i>	No. 10 can (115 oz)	49.6	1/4 cup heated vegetable	2.1	1 No. 10 can = about 12-1/4 cups heated, refried beans
	No. 300 can (16 oz)	7.08	1/4 cup heated vegetable	14.2	1 No. 300 can = about 1-3/4 cups heated refried beans

<sup>2</sup> Dehydrated pinto beans are whole beans that have been cooked and then dehydrated.

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, REFRIED (continued)</b>					
<b>Beans, Refried, dehydrated</b>	Pound	20.5	1/4 cup cooked vegetable	4.9	1 lb AP = about 3-1/2 cups dehydrated 1 lb AP = about 5-1/8 cups rehydrated, cooked beans when the water to dry beans ratio = 2:1
<b>BEANS, RED, SMALL</b>					
<b>Beans, Red, Small, dry, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (111 oz)	31.9	1/4 cup heated, drained vegetable	3.2	1 No. 10 can = about 71.2 oz (8 cups) heated, drained beans
	No. 300 can (15-1/2 oz)	4.94	1/4 cup heated, drained vegetable	20.3	1 No. 300 can = about 8.5 oz (1-1/8 cups) heated, drained beans
<b>Beans, Red, Small, dry</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	20.4	1/4 cup cooked, drained vegetable	5.0	1 lb dry = about 2-1/8 cups dry beans
<b>BEANS, SOY</b>					
<b>Beans, Soy, fresh (Edamame)</b> <i>Shelled</i>	Pound	10.7	1/4 cup cooked, drained vegetable	9.4	1 lb in pod = 0.65 lb (about 1-3/4 cups) blanched, shelled beans
<b>Beans, Soy, fresh (Edamame)</b> <i>Whole</i> <i>In shell</i>	Pound	6.90	1/4 cup cooked, drained, shelled vegetable	14.5	
<b>Beans, Soy, dry, canned</b> <i>Shelled</i>	Pound	7.30	1/4 cup heated, drained vegetable	13.7	
<b>Beans, Soy, dry</b> <i>Shelled</i>	Pound	25.9	1/4 cup cooked vegetable	3.9	1 lb dry about 2-1/2 cup dry beans

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEAN SPROUTS<sup>3</sup></b>					
<b>Bean Sprouts, fresh<sup>3</sup></b> <i>Mung</i>	Pound	14.6	1/4 cup parboiled, drained vegetable	6.9	1 lb AP = 0.89 lb parboiled
<b>Bean Sprouts, fresh<sup>3</sup></b> <i>Soybean</i>	Pound	17.2	1/4 cup parboiled, drained vegetable	5.9	1 lb AP = 0.95 lb parboiled
<b>Bean Sprouts, canned</b>	No. 10 can (102 oz)	29.1	1/4 cup heated, drained vegetable	3.5	1 No. 10 can = about 48.4 oz (7-1/4 cups) heated, drained bean sprouts
	No. 10 can (102 oz)	42.2	1/4 cup drained vegetable	2.4	1 No. 10 can = about 59.0 oz (10-1/2 cups) drained, unheated bean sprouts
	No. 300 can (14 oz)	3.99	1/4 cup heated, drained vegetable	25.1	1 No. 300 can = about 6.5 oz (1 cup) heated, drained bean sprouts
	No. 300 can (14 oz)	5.34	1/4 cup drained vegetable	18.8	1 No. 300 can = about 8.0 oz (1-1/3 cups) drained, unheated bean sprouts
<b>BEANS, WAX</b>					
<b>Beans, Wax, fresh</b> <i>Whole Untrimmed</i>	Pound	10.5	1/4 cup whole, cooked, drained vegetable	9.6	1 lb AP = 0.95 lb (about 4-1/3 cups) ready-to-cook cut beans

<sup>3</sup> Due to the increasing number of illnesses associated with consumption of raw sprouts, the Food and Drug Administration has advised all consumers – especially children, pregnant women, the elderly, and persons with weakened immune systems – to not eat raw sprouts as a way to reduce the risk of foodborne illness. Therefore, raw sprout data served in the raw state has been intentionally omitted.



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEANS, WAX (continued)</b>					
<b>Beans, Wax, canned</b>	No. 10 can (101 oz)	34.3	1/4 cup heated, drained vegetable	3.0	1 No. 10 can = about 53.7 oz (8-1/2 cups) heated, drained beans
	No. 10 can (101 oz)	43.2	1/4 cup drained vegetable	2.4	1 No. 10 can = about 59.3 oz (10-3/4 cups) drained, unheated beans
	No. 2-1/2 can (28 oz)	12.9	1/4 cup heated, drained vegetable	7.8	
	No. 2-1/2 can (28 oz)	14.0	1/4 cup drained vegetable	7.2	1 No. 2-1/2 can = about 16.0 oz (3-1/2 cups) drained, unheated beans
	No. 300 can (14-1/2 oz)	4.58	1/4 cup heated, drained vegetable	21.9	1 No. 300 can = about 7.1 oz (1-1/8 cups) heated, drained vegetable
	No. 300 can (14-1/2 oz)	6.17	1/4 cup drained vegetable	16.3	1 No. 300 can = about 7.0 oz (1-1/2 cups) drained, unheated beans
	Pound	5.43	1/4 cup heated, drained vegetable	18.5	
	Pound	6.84	1/4 cup drained vegetable	14.7	
<b>BEETS</b>					
<b>Beets, fresh</b> Without tops	Pound	11.6	1/4 cup raw, pared vegetable sticks	8.7	1 lb AP = 0.77 lb pared
	Pound	7.60	1/4 cup diced, cooked vegetable	13.2	
	Pound	7.70	1/4 cup sliced, cooked vegetable	13.0	1 lb AP = 0.73 lb cooked slices

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEETS (continued)</b>					
<b>Beets, canned</b> <i>Baby Whole</i>	No. 10 can (103 oz)	36.7	1/4 cup heated, drained vegetable	2.8	1 No. 10 can = about 60.2 oz (9-1/8 cups) heated, drained beets
	No. 10 can (103 oz)	40.2	1/4 cup drained vegetable	2.5	1 No. 10 can = about 64.0 oz (10 cups) drained, unheated beets
	Pound	5.70	1/4 cup heated, drained vegetable	17.6	
	Pound	6.24	1/4 cup drained vegetable	16.1	
<b>Beets, canned</b> <i>Diced</i>	No. 10 can (104 oz)	37.6	1/4 cup heated, drained vegetable	2.7	1 No. 10 can = about 63.3 oz (9-3/8 cups) heated, drained beets
	No. 10 can (104 oz)	40.9	1/4 cup drained vegetable	2.5	1 No. 10 can = about 66.4 oz (10-1/8 cups) drained, unheated beets
	Pound	5.78	1/4 cup heated, drained vegetable	17.4	
	Pound	6.29	1/4 cup drained vegetable	15.9	
<b>Beets, canned</b> <i>Sliced</i>	No. 10 can (104 oz)	36.4	1/4 cup heated, drained vegetable	2.8	1 No. 10 can = about 60.1 oz (9 cups) heated, drained beets
	No. 10 can (104 oz)	38.8	1/4 cup drained vegetable	2.6	1 No. 10 can = about 64.9 oz (9-2/3 cups) drained, unheated beets
	No. 300 can (15 oz)	5.16	1/4 cup heated, drained vegetable	19.4	1 No. 300 can = about 7.9 oz (1-1/4 cups) heated, drained beets
	No. 300 can (15 oz)	5.33	1/4 cup drained vegetable	18.8	1 No. 300 can = about 8.9 oz (1-1/3 cups) drained, unheated beets
<b>BEET GREENS</b>					
<b>Beet Greens, fresh</b> <i>Untrimmed</i>	Pound	3.50	1/4 cup cooked vegetable	28.6	1 lb AP = 0.48 lb ready-to-cook

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BLACKBERRIES (BOYSENBERRIES)</b>					
<b>Blackberries (Boysenberries), fresh</b> <i>Whole</i>	Quart (20 oz)	14.9	1/4 cup raw fruit	6.8	1 qt AP = 1.2 lb (about 3-3/4 cups) ready-to-serve raw berries
	Pound	11.9	1/4 cup raw fruit	8.5	1 lb AP = 0.96 lb (about 2-7/8 cups) ready-to-serve raw berries
<b>Blackberries (Boysenberries), canned</b> <i>Whole</i>	No. 10 can (103 oz)	47.8	1/4 cup fruit and juice	2.1	1 No. 10 can = about 66.0 oz (10-2/3 cups) drained berries
	Pound	7.42	1/4 cup fruit and juice	13.5	1 lb AP = about 9.2 oz (1-1/2 cups) drained berries
<b>Blackberries (Boysenberries), frozen</b> <i>Whole</i>	Pound	8.00	1/4 cup cooked fruit, sugar added	12.5	
	Pound	9.00	1/4 cup thawed fruit, sugar added	11.2	
<b>Blackberries (Boysenberries), frozen</b> <i>Puree</i> <i>Includes USDA Commodity</i>	Pound	7.70	1/4 cup thawed fruit puree	13.0	1 lb = about 1-7/8 cups thawed fruit puree
	5 lb 12 oz container	44.2	1/4 cup thawed fruit puree	2.3	5 lb 12 oz container = about 11 cups thawed fruit puree
<b>BLUEBERRIES</b>					
<b>Blueberries, fresh</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pint (14-1/4 oz)	10.7	1/4 cup raw fruit	9.4	1 pt AP = 0.87 lb (about 2-2/3 cups) ready-to-serve raw berries
	Pound	11.9	1/4 cup raw fruit	8.5	1 lb AP = 0.96 lb ready-to-serve raw berries
<b>Blueberries, canned</b> <i>Whole</i>	No. 10 can (105 oz)	47.6	1/4 cup fruit and juice	2.2	1 No. 10 can = about 55.0 oz (9-1/4 cups) drained berries
	No. 300 can (15 oz)	6.80	1/4 cup fruit and juice	14.8	1 No. 300 can = about 8.2 oz (1-3/8 cups) drained berries
	Pound	7.20	1/4 cup fruit and juice	13.9	



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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BLUEBERRIES (continued)</b>					
<b>Blueberries, frozen</b> <i>Whole</i>	Pound	7.80	1/4 cup cooked fruit, sugar added	12.9	
<b>Blueberries, frozen</b> <i>Whole</i> <i>Individually-quick-frozen</i>	Pound	11.9	1/4 cup thawed fruit unsweetened	8.5	1 lb AP = 0.91 lb (about 2-7/8 cups) ready-to-serve berries
<b>Blueberries, dehydrated</b> <i>Whole</i>	Pound	12.4	1/4 cup dehydrated fruit	8.1	1 lb AP = 1 lb (about 3 cups) ready-to-serve dried berries
<b>BOKCHYOY</b>					
<b>Bokchoy, fresh</b> <i>Whole</i>	Pound	14.4	1/4 cup raw, shredded vegetable	7.0	1 lb AP = 0.77 lb (about 3-1/2 cups) ready-to-serve bokchoy
<b>BOYSENBERRIES (see BLACKBERRIES)</b>					
<b>BREADFRUIT</b>					
<b>Breadfruit, fresh</b> <i>Guatemalan</i>	Pound	5.69	1/4 cup baked, mashed fruit	17.6	1 lb AP = 0.60 lb (about 1-3/8 cup) cooked mashed fruit, 1 breadfruit = about 2.6 lb
<b>BROCCOLI</b>					
<b>Broccoli, fresh</b> <i>Untrimmed</i>	Pound	9.80	1/4 cup raw vegetable spears	10.3	1 lb AP = 0.81 lb ready-to-cook broccoli
	Pound	9.40	1/4 cup cooked, drained vegetable spears	10.7	1 medium spear = about 1/4 cup
	Pound	10.2	1/4 cup cut, cooked, drained vegetable	9.9	
<b>Broccoli, fresh</b> <i>Florets</i> <i>Trimmed</i> <i>Ready-to-use</i>	Pound	28.8	1/4 cup cut, raw vegetable	3.5	1 lb AP = 1 lb (about 7-1/8 cups) ready-to-cook broccoli

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<b>BROCCOLI (continued)</b>					
<b>Broccoli, fresh</b> <i>Spears</i> <i>Trimmed</i> <i>Ready-to-use</i>	Pound	17.1	1/4 cup raw vegetable spears	5.9	1 lb AP = 1.0 lb (about 4-1/4 cups) ready-to-cook broccoli
	Pound	13.0	1/4 cup cooked, drained vegetable spears	7.7	1 lb AP = 1.00 lb (about 3-1/4 cups) cooked broccoli
<b>Broccoli, fresh</b> <i>Slaw</i> <i>Ready-to-use</i>	Pound	21.1	1/4 cup raw vegetable	4.8	1 lb AP = 1 lb (about 5-1/4 cups) ready-to-serve or -cook broccoli slaw
<b>Broccoli, frozen</b> <i>Spears</i>	Pound	10.9	1/4 cup cooked, drained vegetable	9.2	1 lb AP = 0.90 lb (about 2-5/8 cups) cooked broccoli
<b>Broccoli, frozen</b> <i>Cut or chopped</i>	Pound	9.60	1/4 cup cooked, drained vegetable	10.5	
<b>BRUSSELS SPROUTS</b>					
<b>Brussels Sprouts, fresh</b> <i>Whole</i>	Pound	8.50	1/4 cup cooked, drained vegetable	11.8	1 lb AP = 0.76 lb ready-to-cook Brussels sprouts
<b>Brussels Sprouts, fresh</b> <i>Trimmed</i> <i>Ready-to-use</i>	Pound	16.1	1/4 cup raw vegetable	6.3	1 lb AP = 1 lb (about 4 cups) ready-to-serve Brussels sprouts
	Pound	13.4	1/4 cup cooked, drained vegetable	7.5	1 lb AP = 1.00 lb (about 3-1/3 cups) steamed Brussels sprouts
<b>Brussels Sprouts, frozen</b> <i>Ready-to-use</i>	Pound	10.4	1/4 cup cooked, drained vegetable	9.7	
<b>CABBAGE, CHINESE or CELERY</b>					
<b>Cabbage, Chinese or Celery, fresh</b> <i>Untrimmed</i>	Pound	20.4	1/4 cup raw vegetable strips	5.0	1 lb AP = 0.93 lb (about 5 cups) ready-to-serve, raw cabbage
	Pound	10.6	1/4 cup cooked, drained vegetable strips	9.5	

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<b>CABBAGE, GREEN</b>					
<b>Cabbage, fresh</b> <i>Green</i> <i>Untrimmed</i> <i>Whole</i>	Pound	17.7	1/4 cup raw, chopped vegetable	5.7	1 lb AP = 0.87 lb ready-to-cook or serve raw cabbage
	Pound	11.2	1/4 cup raw, chopped vegetable with dressing	9.0	
	Pound	26.4	1/4 cup raw, shredded vegetable	3.8	
	Pound	13.8	1/4 cup cooked, drained shredded vegetable	7.3	
	Pound	9.86	1/4 cup cooked, drained vegetable wedges	10.2	1 lb AP = 0.82 lb (about 2-3/8 cups) cooked cabbage wedges
	1 head	9.00	1 large cooked leaf (3/4 cups vegetable)	11.2	1 large leaf = 10 to 12 inches in diameter
	1 head	7.00	1 medium cooked leaf (3/8 cup vegetable)	14.3	1 medium leaf = 6 to 8 inches in diameter
<b>Cabbage, fresh</b> <i>Green</i> <i>Shredded</i> <i>Ready-to-use</i>	Pound	27.0	1/4 cup raw vegetable	3.8	1 lb AP = 1 lb (about 6-3/4 cups) ready-to-serve raw, shredded cabbage
<b>CABBAGE, RED</b>					
<b>Cabbage, Red, fresh</b> <i>Whole</i> <i>Untrimmed</i>	Pound	13.0	1/4 cup raw, chopped vegetable	7.7	1 lb AP = 0.64 lb (about 3-1/4 cups) ready-to-cook or -serve raw chopped cabbage
	Pound	24.6	1/4 cup raw, shredded vegetable	4.1	1 lb AP = 0.83 lb (about 6 cups) ready-to-cook or -serve raw, shredded cabbage
	Pound	13.3	1/4 cup cooked, shredded vegetable	7.6	
<b>Cabbage, Red, fresh</b> <i>Shredded</i> <i>Ready-to-use</i>	Pound	22.8	1/4 cup raw vegetable	4.4	1 lb AP = 1 lb (about 5-2/3 cups) ready-to-serve raw, shredded cabbage



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<b>CACTUS (NOPALES)</b>					
<b>Cactus (Nopales), fresh</b> <i>Leaves (or petals)</i> <i>Unpeeled</i> <i>With thorns</i>	Pound	6.80	1/4 cup unpeeled, diced cooked, drained vegetable (thorns removed)	14.8	1 lb AP = 0.96 lb (about 1-2/3 cups) unpeeled, thorns removed, diced, cooked, drained cactus
<b>Cactus (Nopales), fresh</b> <i>Leaves (or Petals)</i> <i>Unpeeled</i> <i>Without thorns</i>	Pound	6.96	1/4 cup unpeeled diced, cooked, drained vegetable	14.4	1 lb AP = 0.99 lb ready-to-cook diced cactus 1 lb AP = about 1-2/3 cups diced, cooked, drained cactus
<b>Cactus (Nopalitos), canned</b> <i>Leaves (or Petals)</i> <i>Cut</i>	14 oz jar	3.04	1/4 cup heated, drained vegetable	32.9	14 oz jar = about 5.7 oz (3/4 cup) cooked, drained cactus
	14 oz jar	3.65	1/4 cup drained vegetable	27.4	14 oz jar = about 6.3 oz (7/8 cup) drained, unheated cactus
<b>CACTUS FRUIT (PRICKLY PEAR)</b>					
<b>Cactus Fruit (Prickly Pear), fresh</b> <i>Whole fruit</i>	Pound	4.99	1/4 cup peeled, diced fruit, with seeds	20.1	1 lb AP = 0.61 lb (about 1-1/8 cup) ready-to-serve raw, peeled, diced cactus with seeds
	Pound	3.74	1/4 cup, peeled, juice and pulp, without seeds	26.8	1 lb = 0.48 lb (about 7/8 cup) ready-to-cook peeled cactus juice and pulp without seeds
<b>CANTALOUPE<sup>4</sup></b>					
<b>Cantaloupe, fresh<sup>4</sup></b> <i>Whole</i> <i>18 Count (5-inch diameter, about 30 oz)</i>	Pound	5.73	1/4 cup cubed or diced fruit (about 1/10 medium melon)	17.5	1 lb AP = 0.47 lb (about 1-3/8 cups) ready-to-serve raw melon, 1 melon = about 14 oz EP
<b>Cantaloupe, fresh<sup>4</sup></b> <i>Whole</i> <i>15 Count (5-3/4-inch diameter, about 40 oz)</i>	Pound	6.74	1/4 cup cubed or diced fruit (about 1/16 large melon)	14.9	1 lb AP = 0.56 lb (about 1-2/3 cups) ready-to-serve raw, peeled, diced melon, 1 melon = about 1.3 lb EP

<sup>4</sup> In response to Salmonella outbreaks associated with raw melon, the Food and Drug Administration has provided guidance for safe handling practices for melons that include washing the outer surface of the melon thoroughly with cool tap water to remove surface dirt.

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CANTALOUPE<sup>4</sup> (continued)</b>					
<b>Cantaloupe, frozen</b> <i>Melon balls</i> <i>Packed in syrup</i>	Pound	7.80	1/4 cup fruit and juice	12.9	
<b>Cantaloupe, frozen</b> <i>Melon balls</i> <i>Unsweetened</i>	Pound	8.70	1/4 cup fruit	11.5	1 lb = 35 balls
<b>CARAMBOLA (see STAR FRUIT)</b>					
<b>CARROTS</b>					
<b>Carrots, fresh</b> <i>Without tops</i>	Pound	10.3	1/4 cup raw vegetable strips (about 3 strips, 4-inch by 1/2 inch)	9.8	1 lb AP = 0.70 lb ready-to-cook, or -serve raw carrot sticks
	Pound	10.6	1/4 cup raw, chopped vegetable	9.5	
	Pound	15.4	1/4 cup raw, shredded vegetable	6.5	1 lb AP = 0.83 lb (about 3-3/4 cups) trimmed, peeled, shredded carrot
	Pound	8.10	1/4 cup raw shredded vegetable with dressing	12.4	
	Pound	8.63	1/4 cup cooked, drained shredded vegetable	11.6	1 lb AP = 0.79 lb (about 2-1/8 cups) trimmed, peeled, shredded, cooked carrot
	Pound	10.9	1/4 cup raw, sliced vegetable (5/16-inch slices)	9.2	1 lb AP = 0.83 lb (about 2-2/3 cups) trimmed, peeled, sliced carrots
	Pound	8.16	1/4 cup cooked, drained sliced vegetable (5/16-inch slices)	12.3	1 lb AP = 0.76 lb (about 2 cups) cooked, sliced carrots
<b>Carrots, fresh</b> <i>Shredded</i> <i>Ready-to-use</i>	Pound	19.9	1/4 cup raw vegetable	5.1	1 lb AP = 1 lb (about 4-7/8 cups) ready-to-use raw, shredded carrot
	Pound	11.2	1/4 cup cooked, drained vegetable	9.0	1 lb AP = 0.92 lb (about 2-3/4 cups) cooked carrot

<sup>4</sup> In response to Salmonella outbreaks associated with raw melon, the Food and Drug Administration has provided guidance for safe handling practices for melons that include washing the outer surface of the melon thoroughly with cool tap water to remove surface dirt.

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CARROTS (continued)</b>					
<b>Carrots, fresh</b> <i>Sliced</i> <i>Peeled</i> <i>Ready-to-use</i>	Pound	12.6	1/4 cup raw vegetable slices (5/16-inch slices)	8.0	1 lb AP = 1 lb (about 3-1/8 cups) ready-to-serve or -cook carrot
<b>Carrots, fresh</b> <i>Sticks</i> <i>Ready-to-use</i> <i>(1/2-inch by 4-inch)</i>	Pound	15.4	1/4 cup raw vegetable (about 3 sticks)	6.5	1 lb AP = 1 lb (about 3-3/4 cups) carrot sticks
<b>Carrots, fresh</b> <i>Baby</i> <i>Ready-to-use</i>	Pound	12.9	1/4 cup raw vegetable	7.8	1 lb AP = 1 lb (about 3-1/8 cups) ready-to-serve raw carrots
	Pound	11.4	1/4 cup cooked, drained vegetable	8.8	1 lb AP = 0.97 lb (about 2-3/4 cups) cooked carrots
<b>Carrots, canned</b> <i>Diced</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	34.3	1/4 cup heated, drained vegetable	3.0	1 No. 10 can = about 62.0 oz (8-1/2 cups) heated, drained carrots
	No. 10 can (105 oz)	40.0	1/4 cup drained vegetable	2.5	1 No. 10 can = about 67.0 oz (10 cups) drained, unheated carrots
	Pound	5.22	1/4 cup heated, drained vegetable	19.2	
	Pound	6.09	1/4 cup drained vegetable	16.5	
<b>Carrots, canned</b> <i>Sliced</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	37.2	1/4 cup heated, drained vegetable	2.7	1 No. 10 can = about 65.0 oz (9-1/4 cups) heated, drained carrot
	No. 10 can (105 oz)	43.4	1/4 cup drained vegetable	2.4	1 No. 10 can = about 70.0 oz (10-3/4 cups) drained, unheated carrots
	No. 300 can (15 oz)	5.20	1/4 cup heated, drained vegetable	19.3	1 No. 300 can = about 8.6 oz (1-1/4 cups) heated, drained carrots
	No. 300 can (15 oz)	5.88	1/4 cup drained vegetable	17.1	1 No. 300 can = about 8.5 oz (1-3/8 cups) drained, unheated carrots



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CARROTS (continued)</b>					
<b>Carrots, frozen</b> <i>Sliced</i> <i>Includes USDA Commodity</i>	Pound	9.87	1/4 cup cooked, drained vegetable	10.2	1 lb AP = 0.95 lb (about 2-3/8 cups) cooked, drained carrot
<b>Carrots, frozen</b> <i>Baby</i>	Pound	10.9	1/4 cup cooked, drained vegetable	9.2	
<b>CASSAVA (see YUCCA)</b>					
<b>CAULIFLOWER</b>					
<b>Cauliflower, fresh</b> <i>Whole</i> <i>Trimmed</i>	Pound	12.5	1/4 cup raw, sliced vegetable	8.0	1 lb AP = 0.62 lb ready-to-cook or -serve raw cauliflower
	Pound	12.3	1/4 cup raw vegetable florets	8.2	1 medium head = about 6 cups cauliflower florets
	Pound	8.80	1/4 cup cooked, drained vegetable florets	11.4	1 lb AP = 0.61 lb cooked cauliflower
<b>Cauliflower, fresh</b> <i>Florets</i> <i>Ready-to-use</i>	Pound	18.3	1/4 cup raw vegetable florets	5.5	1 lb AP = 1 lb (about 4-1/2 cups) ready-to-cook or -serve cauliflower
	Pound	14.1	1/4 cup cooked, drained vegetable florets	7.1	
<b>Cauliflower, frozen</b>	Pound	9.20	1/4 cup cooked, drained vegetable	10.9	
<b>CELERY</b>					
<b>Celery, fresh</b> <i>Trimmed</i>	Pound	12.2	1/4 cup raw vegetable sticks or strips (about 3 sticks, 1/2-inch by 4-inch sticks)	8.2	
	Pound	12.5	1/4 cup raw, chopped vegetable	8.0	1 lb AP = 0.83 lb (about 3-1/8 cups) ready-to-cook or -serve raw celery
	Pound	12.3	1/4 cup raw, diced vegetable	8.2	
	Pound	8.70	1/4 cup diced, cooked, drained vegetable	11.5	1 lb AP = 0.74 lb (about 2-1/8 cups) cooked celery
	Pound	8.10	1/4 cup sliced, cooked, drained vegetable	12.4	

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CELERY (continued)</b>					
<b>Celery, fresh</b> Sticks Ready-to-use (1/2-inch by 4-inch)	Pound	14.0	1/4 cup raw vegetables (about 3 sticks)	7.2	1 lb AP = 1 lb (about 3-1/2 cups) ready-to-serve raw celery
<b>Celery, fresh</b> Diced Ready-to-use	Pound	12.9	1/4 cup raw vegetable	7.8	1 lb AP = 1 lb (about 3-1/8 cups) ready-to-cook or -serve raw celery
<b>Celery, canned</b> Diced	No. 10 can (102 oz)	38.4	1/4 cup heated, drained vegetable	2.7	1 No. 10 can = about 64.0 oz (9-1/2 cups) heated, drained celery
	No 10 can (102 oz)	49.0	1/4 cup drained vegetable	2.1	1 No 10 can = about 74.0 oz (12-3/8 cups) drained celery
	Pound (drained weight)	8.27	1/4 cup heated, drained vegetable	12.1	
	Pound (drained weight)	10.5	1/4 cup drained vegetable	9.6	
<b>Celery, canned</b> Diced In sauce	No. 10 can (104 oz)	49.7	1/4 cup heated, drained vegetable	2.1	1 No. 10 can = about 100.0 oz (12-3/8 cups) heated, drained celery
<b>CHARD, SWISS (see SWISS CHARD)</b>					
<b>CHAYOTE (MIRLITON)</b>					
<b>Chayote (Mirliton), fresh</b> Whole Unpeeled	Pound	12.6	1/4 cup unpeeled, pitted, sliced, raw vegetable	8.0	1 lb AP = 0.96 lb (about 3-1/8 cups) ready-to-serve, raw, pitted, sliced chayote
	Pound	9.46	1/4 cup unpeeled, pitted, sliced, cooked, drained vegetable	10.6	1 lb AP = 0.88 lb (about 2-1/3 cups) unpeeled, pitted, sliced, cooked chayote
<b>CHERRIES, MARASCHINO</b>					
<b>Cherries, Maraschino, canned</b> Large	Pound	6.20	1/4 cup drained fruit	16.2	

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHERRIES, MARASCHINO (continued)</b>					
<b>Cherries, Maraschino, canned Small</b>	Pound	5.70	1/4 cup drained fruit	17.6	
<b>CHERRIES, RED TART</b>					
<b>Cherries, Red Tart, fresh Whole</b>	Pound	6.40	1/4 cup cooked, pitted fruit, sugar added	15.7	1 lb AP = 0.87 lb pitted cherries
<b>Cherries, Red Tart, canned Pitted Water packed Includes USDA Commodity</b>	No. 10 can (102 oz)	46.8	1/4 cup fruit and juice	2.2	1 No. 10 can = about 11-3/4 cups net pitted cherries and juice
	No. 10 can (102 oz)	36.2	1/4 cup drained fruit	2.8	1 No. 10 can = about 70.0 oz (9 cups) drained, pitted cherries
	Pound	7.29	1/4 cup fruit and juice	13.8	
	Pound	5.79	1/4 cup drained fruit	17.3	
<b>Cherries, Red Tart, frozen Pitted Includes USDA Commodity</b>	Pound	11.4	1/4 cup thawed fruit and juice	8.8	1 lb AP = 0.98 lb (about 2-3/4 cups) thawed cherries and juice
	Pound	7.00	1/4 cup drained fruit	14.3	1 lb AP = 0.70 lb (about 1-3/4 cups) thawed, drained cherries
	Pound	5.90	1/4 cup cooked fruit and juice	17.0	
	40 lb pkg	457.4	1/4 cup thawed fruit and juice	0.22	40 lb pkg = about 114-1/4 cups thawed cherries and juice
	40 lb pkg	280.8	1/4 cup thawed, drained fruit	0.36	40 lb pkg = about 70-1/8 cups thawed, drained cherries
	40 lb pkg	236.7	1/4 cup cooked fruit and juice	0.43	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHERRIES, RED TART (continued)</b>					
<b>Cherries, Red Tart, dehydrated</b> <i>Whole</i> <i>Without pits</i> <i>Includes USDA Commodity</i>	Pound	11.8	1/4 cup dehydrated fruit	8.5	1 lb AP = 1 lb (about 2-7/8 cups) dried cherries
	2 lb pkg	23.6	1/4 cup dehydrated fruit	4.3	
	4 lb pkg	47.2	1/4 cup dehydrated fruit	2.2	
<b>CHERRIES, SWEET</b>					
<b>Cherries, Sweet, fresh</b> <i>Whole</i> <i>With pits</i>	Pound	8.50	1/4 cup raw, pitted cherries (about 7 whole)	11.8	1 lb AP = 0.98 lb ready-to-serve cherries with pits or 0.84 lb pitted cherries
<b>Cherries, Sweet, canned</b> <i>Whole</i> <i>With pits</i>	No. 10 can (106 oz)	45.8	1/4 cup pitted fruit and juice	2.2	1 No. 10 can = about 59.0 oz (9-1/4 cups) drained, pitted cherries
	No. 2-1/2 can (29 oz)	12.5	1/4 cup pitted fruit and juice	8.0	1 No. 2-1/2 can = about 17.6 oz (2-3/8 cups) drained cherries
	Pound	6.91	1/4 cup pitted fruit and juice	14.5	1 lb AP = about 8.4 oz (1-1/3 cups) drained, pitted cherries
<b>CHICKPEAS (see BEANS, GARBANZO)</b>					
<b>CHICORY</b>					
<b>Chicory, fresh</b>	Pound	47.4	1/4 cup raw vegetable pieces	2.2	1 lb AP = 0.89 lb ready-to-serve raw chicory
	Pound	31.6	1/4 cup raw vegetable pieces with dressing	3.2	
<b>CLEMENTINES</b>					
<b>Clementines, fresh</b> <i>Whole</i>	Pound	3.68	1 whole, raw clementine (about 1/2 cup fruit)	27.2	
	Pound	7.65	1/4 cup peeled, sectioned, raw fruit (about 5 sections)	13.1	1 lb AP = 0.80 lb (about 1-7/8 cups) ready-to-serve, raw clementine sections

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>COLLARD GREENS</b>					
<b>Collard Greens, fresh</b> <i>Untrimmed</i>	Pound	6.20	1/4 cup cooked, drained vegetable leaves	16.2	1 lb AP = 0.57 lb ready-to-cook collard leaves
	Pound	10.5	1/4 cup cooked, drained vegetable leaves and stems	9.6	1 lb AP = 0.74 lb ready-to-cook collard leaves and stems
<b>Collard Greens, canned</b>	No. 10 can (101 oz)	27.2	1/4 cup heated, drained vegetable	3.7	1 No. 10 can = about 54.0 oz (6-3/4 cups) heated, drained collards
	No. 10 can (101 oz)	35.9	1/4 cup drained vegetable	2.8	1 No. 10 can = about 66.4 oz (9 cups) drained, unheated collards
	No. 2-1/2 can (27 oz)	6.80	1/4 cup heated, drained vegetable	14.7	1 No. 2-1/2 can = about 17.6 oz (3 cups) drained collards
	No. 300 can (14-1/2 oz)	3.67	1/4 cup heated, drained vegetable	27.3	
<b>Collard Greens, frozen</b> <i>Chopped or Whole leaf</i>	Pound	9.20	1/4 cup cooked, drained vegetable	10.9	
<b>CORN</b>					
<b>Corn, fresh</b> <i>With husks (5 to 6-inch length) Medium</i>	Pound	1.67	1 medium ear (about 1/2 cup cooked vegetable)	59.9	
	Pound	3.35	1/4 cup cooked vegetable (about 1/2 cob)	29.9	1 lb AP = 0.34 lb raw cut corn
<b>Corn, fresh</b> <i>Without husks (5 to 6-inch length) Medium</i>	Pound	2.33	1 medium ear (about 1/2 cup cooked vegetable)	43.0	
	Pound	5.27	1/4 cup cooked vegetable (about 1/2 cob)	19.0	1 lb AP = 0.54 lb raw cut corn
<b>Corn, canned</b> <i>Cream style Includes USDA Commodity</i>	No. 10 can (106 oz)	46.4	1/4 cup heated vegetable	2.2	1 No. 10 can = about 100.7 oz (11-1/2 cups) heated corn
	No. 300 can (15 oz)	6.35	1/4 cup heated vegetable	15.8	1 No. 300 can = about 13.0 oz (1-1/2 cups) heated corn



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CORN (continued)</b>					
<b>Corn, canned</b> Whole kernel Vacuum packed Includes USDA Commodity	No. 10 can (75 oz)	34.1	1/4 cup heated, drained vegetable	3.0	1 No. 10 can = about 60.5 oz (8-1/2 cups) heated, drained corn
	No. 10 can (75 oz)	36.8	1/4 cup drained vegetable	2.8	1 No. 10 can = about 63.0 oz (9 cups) drained, unheated corn
	No. 2 can (12 oz)	6.60	1/4 cup heated, drained vegetable	15.2	1 No. 2 can = about 10.0 oz (1-2/3 cups) drained, heated corn
<b>Corn, canned</b> Whole kernel Liquid pack Includes USDA Commodity	No. 10 can (106 oz)	39.6	1/4 cup heated, drained vegetable	2.6	1 No. 10 can = about 66.0 oz (9-7/8 cups) heated, drained corn
	No. 10 can (106 oz)	40.7	1/4 cup drained vegetable	2.5	1 No. 10 can = about 73.3 oz (10-2/3 cups) drained, unheated corn
	No. 300 can (15-1/4 oz)	5.68	1/4 cup heated, drained vegetable	17.7	1 No. 300 can = about 9.3 oz (1-3/8 cups) heated, drained corn
	No. 300 can (15-1/4 oz)	5.86	1/4 cup drained vegetable	17.1	1 No. 300 can = about 9.6 oz (1-3/8 cups) drained, unheated corn
<b>Corn, frozen</b> Whole Kernel Includes USDA Commodity	Pound	11.1	1/4 cup tempered vegetable (unheated for salads)	9.1	1 lb AP = 0.99 lb (about 2-3/4 cups) ready-to-serve, raw, tempered corn
	Pound	11.0	1/4 cup cooked vegetable	9.1	
<b>Corn, frozen</b> Corn on the cob 3-inch ear (cobbette) Includes USDA Commodity	Pound	4.25	1/4 cup cooked vegetable (about 1 cobbette)	23.6	1 lb AP = 0.53 lb (about 1 cup) edible portion cooked corn
<b>Corn, frozen</b> Corn on the cob 5-1/4-inch ear (medium) Includes USDA Commodity	Pound	2.44	1 medium cooked ear (about 1/2 cup cooked vegetable)	41.0	1 lb AP = 0.52 lb (about 1-1/8 cups) edible portion cooked corn



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
CRANBERRIES					
Cranberries, fresh Whole	Pound	15.6	1/4 cup raw, chopped fruit	6.5	1 lb AP = 0.95 lb ready-to-cook or -serve raw berries
	Pound	11.1	1/4 cup cooked fruit, sugar added, whole berry	9.1	
	Pound	9.90	1/4 cup cooked fruit, sugar added, strained	10.2	
Cranberries, dehydrated Sweetened Whole Includes USDA Commodity	Pound	13.8	1/4 cup dehydrated fruit	7.3	1 lb AP = 1 lb (about 3-3/8 cups) ready-to-cook or -serve berries
	5 lb pkg	69.0	1/4 cup dehydrated fruit	1.5	
	30 lb pkg	414.0	1/4 cup dehydrated fruit	0.25	
CRANBERRY RELISH or SAUCE					
Cranberry Relish or Sauce, canned Whole Includes USDA Commodity	No. 10 can (117 oz)	48.0	1/4 cup fruit	2.1	
	No. 300 can (16 oz)	6.70	1/4 cup fruit	15.0	
Cranberry Relish or Sauce, canned Strained Includes USDA Commodity	No. 10 can (117 oz)	47.9	1/4 cup fruit	2.1	
	No. 300 can (16 oz)	6.50	1/4 cup fruit	15.4	

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CUCUMBERS</b>					
<b>Cucumbers, fresh</b> <i>Whole Unpared</i>	Pound	11.1	1/4 cup unpared, diced vegetable	9.1	1 lb AP = 0.98 lb (about 2-3/4 cups) ready-to-serve raw, unpared, diced cucumber
	Pound	12.4	1/4 cup unpared, sliced vegetable	8.1	1 lb AP = 0.84 lb ready-to-serve raw, unpared, sliced cucumber
	Pound	10.5	1/4 cup pared, diced or sliced vegetable	9.6	
	Pound	9.71	1/4 cup pared vegetable sticks (about 3 sticks, 3-inch by 3/4-inch sticks)	10.3	1 lb AP = 0.81 lb (about 2-3/8 cups) ready-to-serve raw, pared cucumber sticks
	Pound	11.8	1/4 cup unpared vegetable sticks (about 3 sticks, 3-inch by 3/4-inch sticks)	8.5	1 lb AP = 0.98 lb (about 3 cups) ready-to-serve raw, unpared cucumber sticks
<b>CURRANTS</b>					
<b>Currants, dehydrated</b>	Pound	13.8	1/4 cup dehydrated fruit	7.3	1 lb dry = about 3-3/8 cups dry currants
<b>DATES</b>					
<b>Dates, dehydrated</b> <i>Moisturized With pits Whole</i>	Pound	10.0	1/4 cup pitted, dehydrated fruit	10.0	
<b>Dates, dehydrated</b> <i>Pieces Regular moisture Includes USDA Commodity</i>	Pound	12.7	1/4 cup dehydrated fruit	7.9	1 lb dry = about 3-1/8 cups
	30 lb pkg	383.6	1/4 cup dehydrated fruit	0.27	30 lb box = about 95-7/8 cups dried dates
<b>Dates, dehydrated</b> <i>Pitted Regular moisture Includes USDA Commodity</i>	Pound	11.1	1/4 cup whole, dehydrated fruit	9.1	1 lb dry = about 2-3/4 cups whole dry dates
	Pound	10.6	1/4 cup chopped, dehydrated fruit	9.5	1 lb dry = about 2-2/3 cups chopped dry dates
<b>EGGPLANT</b>					
<b>Eggplant, fresh</b> <i>Whole</i>	Pound	6.70	1/4 cup pared, cubed, cooked vegetable	15.0	1 lb AP = 0.81 lb ready-to-cook eggplant

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>ENDIVE, ESCAROLE</b>					
<b>Endive or Escarole, fresh</b> <i>Whole</i>	Pound	19.9	1/4 cup raw vegetable pieces	5.1	1 lb AP = 0.78 lb ready-to-serve raw endive (escarole)
<b>FIGS</b>					
<b>Figs, fresh</b> <i>Small</i> <i>Whole</i>	Pound	8.00	1/4 cup small raw fruit (about 2-1/2 figs)	12.5	1 lb AP = 1 lb (about 2 cups) ready-to-serve, raw figs, 1 lb = about 20 small figs
<b>Figs, canned</b> <i>Puree</i> <i>Includes USDA Commodity</i>	2 gal	128.0	1/4 cup fruit puree	0.79	2-gallon container = 32 cups fruit puree
<b>Figs, canned</b> <i>Whole</i>	No. 10 can (110 oz)	49.3	1/4 cup fruit and juice	2.1	1 No. 10 can = about 64.0 oz (8-3/4 cups) drained figs
	No. 2-1/2 can (30 oz)	13.4	1/4 cup fruit and juice	7.5	1 No. 2-1/2 can = about 18.6 oz (2-1/2 cups) drained figs
	Pound	7.17	1/4 cup fruit and juice	14.0	
<b>Figs, dehydrated</b> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	10.4	1/4 cup dehydrated fruit (about 3 figs)	9.7	1 lb dry = about 2-5/8 cups or 30 figs
	Pound	13.4	1/4 cup cooked fruit and juice	7.5	
<b>Figs, dehydrated</b> <i>Diced and Sugared</i> <i>Includes USDA Commodity</i>	Pound	12.7	1/4 cup dehydrated fruit pieces (about 28 pieces)	7.9	1 lb dry = 3-1/8 cups dried, sugared figs
	25 lb Box	319.9	1/4 cup diced fruit (about 28 pieces)	0.32	25 lb Box = about 80 cups dried, sugared figs
<b>FRUIT, MIXED</b>					
<b>Fruit, Mixed, chilled</b> <i>may include:</i> <i>honeydew melon,</i> <i>cantaloupe,</i> <i>watermelon,</i> <i>grapes, etc.</i>	1 gal (97.7 oz)	64.0	1/4 cup fruit and juice	1.6	1 gallon container = 16 cups fruit and juice



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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>FRUIT, MIXED (continued)</b>					
<b>Fruit, Mixed, canned</b> <i>Fruit Cocktail</i> (peaches, pears, pineapple, grapes, cherries) Includes USDA Commodity	No. 10 can (106 oz)	46.9	1/4 cup fruit and juice	2.2	1 No. 10 can = about 69.0 oz (9-1/4 cups) drained fruit
	No. 2-1/2 can (29 oz)	12.8	1/4 cup fruit and juice	7.9	1 No. 2-1/2 can = about 18.3 oz (2-3/8 cups) drained fruit
	No. 300 can (15 oz)	6.30	1/4 cup fruit and juice	15.9	
<b>Fruit, Mixed, canned</b> <i>may include: apricots, peaches, pears, pineapple, cherries, grapes, etc.</i> Includes USDA Commodity (peaches, pears, grapes)	No. 10 can (106 oz)	48.6	1/4 cup fruit and juice	2.1	1 No. 10 can = about 62.0 oz (8-1/2 cups) drained fruit
	No. 2-1/2 can (29 oz)	13.3	1/4 cup fruit and juice	7.6	1 No. 2-1/2 can = about 16.9 oz (2-1/3 cups) drained fruit
	No. 300 can (15 oz)	6.50	1/4 cup fruit and juice	15.4	
<b>Fruit, Mixed, frozen</b> <i>may include: peaches, grapes, apricots, pears, pineapple, cherries, etc.</i>	136 oz tub	58.2	1/4 cup thawed fruit and juice	1.8	136 oz tub = about 14-3/8 cups thawed fruit and juice
	136 oz tub	23.4	1/4 cup thawed, drained fruit	4.3	136 oz tub = about 49.4 oz (5-3/4 cups) thawed, drained fruit
<b>Fruit, Mixed, dehydrated</b> <i>Regular moisture</i>	Pound	9.70	1/4 cup dehydrated fruit	10.4	
<b>GRAPEFRUIT</b>					
<b>Grapefruit, fresh</b> 27-32 Count (large) Whole	Pound	6.48	1/4 cup fruit sections peeled (about 2 sections)	15.5	1 lb AP = 0.74 lb (about 1-5/8 cups) peeled, ready-to-serve raw grapefruit sections
	Pound	4.53	1/4 cup fruit sections, peeled, without membrane (about 2 sections)	22.1	1 lb AP = 0.58 lb (about 1-1/8 cups) ready-to-serve raw, peeled grapefruit sections without membrane
	Pound	2.00	1/2 grapefruit (about 1/2 cup fruit and juice)	50.0	
	Pound	3.50	1/4 cup fruit and juice	28.6	

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>GRAPEFRUIT (continued)</b>					
<b>Grapefruit, canned Sections</b>	No. 3 Cyl (50 oz)	23.3	1/4 cup fruit and juice	4.3	1 No. 3 Cyl = about 26.0 oz (3-1/8 cups) drained grapefruit
	Pound	7.45	1/4 cup fruit and juice	13.5	
<b>Grapefruit, frozen Sections</b>	Pound	7.50	1/4 cup fruit and juice	13.4	1 lb AP = about 0.55 lb (1-1/8 cups) thawed, drained grapefruit
<b>GRAPEFRUIT and ORANGE SECTIONS</b>					
<b>Grapefruit and Orange Sections, chilled</b>	1 gal (136 oz)	63.9	1/4 cup fruit and juice	1.6	1 gallon = about 91.0 oz (13-1/4 cups) drained fruit
	Pound	7.51	1/4 cup fruit and juice	13.4	
<b>Grapefruit and Orange Sections, canned</b>	No. 3 Cyl (50 oz)	22.6	1/4 cup fruit and juice	4.5	1 No. 3 Cyl = about 26.0 oz (3-1/2 cups) drained fruit
	Pound	7.23	1/4 cup fruit and juice	13.9	1 lb AP = about 8.5 oz (1-1/8 cups) drained fruit
<b>GRAPES</b>					
<b>Grapes, fresh Seedless Whole With stem</b>	Pound	10.5	1/4 cup whole fruit (about 7 large grapes)	9.6	1 lb AP = 0.97 lb (about 2-5/8 cups) ready-to-serve grapes
	Pound	9.27	1/4 cup fruit halves (about 14 large grape halves)	10.8	1 lb AP = 0.97 lb (about 2-1/4 cups) ready-to-serve grape halves
<b>Grapes, fresh Seedless Whole Without stem</b>	Pound	10.8	1/4 cup whole fruit (about 7 large grapes)	9.3	
<b>Grapes, fresh Whole With seeds and stem</b>	Pound	10.1	1/4 cup seeded fruit halves (about 12 grape halves)	10.0	1 lb AP = 0.89 lb raw seeded grapes



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
GRAPES (continued)					
Grapes, canned Seedless Whole	No. 10 can (108 oz)	50.0	1/4 cup fruit and juice	2.0	1 No. 10 can = about 67.0 oz (10 cups) drained grapes
	No. 2-1/2 can (30 oz)	13.8	1/4 cup fruit and juice	7.3	1 No. 2-1/2 can = about 18.6 oz (2-3/4 cups) drained grapes
	Pound	7.40	1/4 cup fruit and juice	13.6	1 lb AP = about 9.9 oz (1-1/2 cups) drained grapes
GRAPE LEAVES					
Grape Leaves, fresh Whole with stem	Pound	27.4	1/4 cup cooked, drained vegetable (about 3 leaves)	3.7	1 lb AP = 0.80 lb (about 6-3/4 cups) cooked, steamed grape leaves without stem
Grape Leaves, canned Pickled	14 oz jar	17.0	1/4 cup drained vegetable (about 3 leaves)	5.9	14 oz jar = about 8.0 oz (4-1/4 cups) drained leaves
GUAVA PUREE					
Guava Puree, frozen	30 oz container	13.3	1/4 cup fruit puree	7.6	30 oz container = about 29.6 oz (3-1/3 cups) thawed fruit puree
	Pound	7.20	1/4 cup fruit puree	13.9	
HONEYDEW MELON <sup>5</sup>					
Honeydew Melon, fresh <sup>5</sup> Whole	Pound	4.90	1/4 cup fruit cubes	20.5	1 lb AP = 0.46 lb (about 1-1/8 cups) ready-to-serve melon cubes
Honeydew Melon, frozen	Pound	8.70	1/4 cup fruit balls	11.5	1 lb = about 35 fruit balls

<sup>5</sup>In response to Salmonella outbreaks associated with raw melon, the Food and Drug Administration has provided guidance for safe handling practices for melons that include washing the outer surface of the melon thoroughly with cool tap water to remove surface dirt.



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>JICAMA (YAM BEAN)</b>					
<b>Jicama (Yam Bean), fresh Whole</b>	Pound	11.9	1/4 cup raw peeled, julienned vegetable strips	8.5	1 lb AP = 0.89 lb (about 2-7/8 cups) ready-to-serve raw peeled, julienned jicama strips
	Pound	9.61	1/4 cup peeled, cooked, julienned vegetable strips	10.5	1 lb AP = 0.87 lb (about 2-3/8 cups) cooked jicama strips
<b>JUICES<sup>6, 7</sup></b>					
<b>Juices, canned<sup>6</sup></b> <i>Single strength (100% juice)</i> <i>Vegetable or Fruit (such as Apple, Grape, Grapefruit, Grapefruit-Orange, Lemon, Lime, Orange, Pineapple, Prune, Tomato, and Tangerine)</i>	No. 10 can (96 fl oz)	48.0	1/4 cup fruit or vegetable juice	2.1	1 No. 10 can = 12 cups juice
	No. 3 Can (46 fl oz)	23.0	1/4 cup fruit or vegetable juice	4.4	
	Quart (32 fl oz)	16.0	1/4 cup fruit or vegetable juice	6.3	
	No. 2-1/2 can (25-1/2 fl oz)	12.7	1/4 cup fruit or vegetable juice	7.9	
<b>Juices, frozen<sup>7</sup></b> <i>Concentrated, any fruit (such as Apple, Grape, Grapefruit, Grapefruit-Orange, and Orange. (1 part juice to 3 parts water) Includes USDA Commodity</i>	32 fl oz can (about 30 oz)	64.0	1 tablespoon concentrate (1/4 cup fruit juice)	1.6	32 fl oz can reconstituted = 16 cups (128 fl oz) Reconstitute 1 part juice with not more than 3 parts water
	6 fl oz can (about 7 oz)	12.0	1 tablespoon concentrate (1/4 cup fruit juice)	8.4	6 fl oz can reconstituted = 3 cups (24 fl oz)

<sup>6</sup>According to the Food and Drug Administration, unpasteurized juice may contain harmful bacteria that may put children, pregnant women, the elderly, and persons with weakened immune systems at risk for serious illness or even death. Unpasteurized juice is normally found in the refrigerated section of grocery or health food stores or at cider mills or farm markets. Unpasteurized juice should have warning information on the label or on a nearby sign at the point of purchase. When serving juice, use only pasteurized juice. Pasteurized juice is normally found as frozen concentrated juice or in non-refrigerated shelf-stable containers, such as juice boxes, bottles, or cans. Pasteurized juice can also be found in the refrigerated sections of stores.

<sup>7</sup>The canned and frozen juices listed in Column 1 are usually available in the can sizes listed in Column 2.

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>KALE</b>					
<b>Kale, fresh</b> <i>Trimmed</i> <i>With stem</i> <i>Ready-to-use</i>	Pound	35.7	1/4 cup raw, chopped vegetable (no stem)	2.9	1 lb AP = 0.73 lb ready-to-cook, stemmed kale leaves
	Pound	10.0	1/4 cup cooked, drained vegetable (no stem)	10.0	1 lb AP = 0.77 lb (about 2-1/2 cups) stemmed, chopped, cooked kale
<b>Kale, fresh</b> <i>Trimmed</i> <i>Without stem</i>	Pound	48.8	1/4 cup raw, chopped vegetable	2.1	1 lb AP = 1 lb ready-to-cook
	Pound	13.7	1/4 cup cooked, drained vegetable	7.3	1 lb AP = 1.15 lb (about 3-3/8 cups) cooked, drained kale
<b>Kale, fresh</b> <i>Untrimmed</i>	Pound	11.8	1/4 cup cooked, drained vegetable	8.5	1 lb AP = 0.67 lb ready-to-cook kale
<b>Kale, canned</b>	No. 10 can (98 oz)	26.7	1/4 cup heated, drained vegetable	3.8	1 No. 10 can = about 49.6 oz (6-2/3 cups) heated, drained kale
	No. 10 can (98 oz)	40.2	1/4 cup drained vegetable	2.5	1 No. 10 can = about 58.0 oz (10 cups) drained kale
	No 2-1/2 can (27 oz)	7.35	1/4 cup heated, drained vegetable	13.7	1 No. 2-1/2 can = about 1-3/4 cups heated, drained kale
	No 2-1/2 can (27 oz)	11.0	1/4 cup drained vegetable	9.1	1 No. 2-1/2 can = about 15.9 oz (2-3/4 cups) drained, unheated kale
	Pound	4.35	1/4 cup heated, drained vegetable	23.0	
	Pound	6.56	1/4 cup drained vegetable	15.3	
<b>Kale, frozen</b> <i>Chopped</i>	Pound	12.1	1/4 cup cooked, drained vegetable	8.3	
<b>Kale, frozen</b> <i>Whole leaf</i>	Pound	9.50	1/4 cup cooked, drained vegetable	10.6	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>KIWI</b>					
<b>Kiwi, fresh</b> 33-39 Count Whole	Pound	8.38	1/4 cup peeled fruit chunks	12.0	1 lb AP = 0.87 lb (about 2 cups) ready-to-serve peeled kiwi chunks
	Pound	10.6	1/4 cup unpeeled fruit chunks	9.5	1 lb AP = 0.99 lb (about 2-2/3 cups) ready-to-serve unpeeled kiwi chunks
	Pound	8.99	1/4 cup peeled fruit slices (about six 1/4-inch slices)	11.2	1 lb AP = 0.85 lb (about 2-1/4 cups) ready-to-serve peeled 1/4-inch kiwi slices
	Pound	11.6	1/4 cup unpeeled fruit slices (about six 1/4-inch slices)	8.7	1 lb AP = 0.99 lb (about 2-7/8 cups) ready-to-serve unpeeled 1/4-inch kiwi slices
	Pound	10.8	1/4 cup unpeeled fruit halves (about 2 halves or 3/4 of a whole kiwi)	9.3	1 lb AP = 0.99 lb ready-to-serve unpeeled kiwi halves
<b>KOHLRABI</b>					
<b>Kohlrabi, fresh</b> Untrimmed	Pound	5.10	1/4 cup cooked, drained vegetable	19.7	1 lb AP = 0.45 lb ready-to-cook, pared kohlrabi
<b>Kohlrabi, fresh</b> Whole With leaves and stems	Pound	9.30	1/4 cup raw peeled vegetable sticks	10.8	1 lb AP = 0.73 lb ready-to-serve or -cook, pared kohlrabi
	Pound	10.1	1/4 cup raw vegetable chunks	10.0	1 lb AP = 0.82 lb (about 2-1/2 cups) ready-to-serve or -cook, pared kohlrabi chunks
<b>LEMONS</b>					
<b>Lemons, fresh</b> Whole	Pound	3.10	1/4 cup fruit juice	32.3	1 lb AP = 0.43 lb (about 3/4) cup juice
<b>LETTUCE</b>					
<b>Lettuce, fresh</b> Iceberg Head Untrimmed	Pound	22.2	1/4 cup raw, shredded vegetable	4.6	1 lb AP = 0.76 lb (about 5-1/2 cups) ready-to-serve shredded lettuce
	Pound	20.8	1/4 cup raw vegetable pieces	4.9	
	Pound	13.9	1/4 cup raw vegetable pieces with dressing	7.2	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>LETTUCE (continued)</b>					
<b>Lettuce, fresh</b> <i>Leaf</i> <i>Untrimmed</i>	Pound	21.7	1/4 cup raw vegetable pieces	4.7	1 lb AP = 0.66 lb ready-to-serve raw lettuce
	Pound	14.5	1/4 cup raw vegetable pieces with dressing	6.9	
<b>Lettuce, fresh</b> <i>Iceberg</i> <i>Head</i> <i>Cleaned and cored</i> <i>Ready-to-use</i>	Pound	29.2	1/4 cup raw vegetable pieces	3.5	1 lb AP = 1 lb (about 7-1/3 cups) ready-to-serve raw lettuce
<b>Lettuce, fresh</b> <i>Salad mix (mostly</i> <i>Iceberg, some</i> <i>Romaine with</i> <i>shredded Carrot</i> <i>and Red Cabbage)</i>	Pound	26.4	1/4 cup raw vegetable pieces	3.8	1 lb AP = 1 lb (about 6-1/2 cups) ready-to-serve raw lettuce
<b>Lettuce, fresh</b> <i>Mixed greens (equal</i> <i>amounts of Iceberg</i> <i>and Romaine with</i> <i>shredded Carrots</i> <i>and Red Cabbage)</i>	Pound	25.7	1/4 cup raw vegetable pieces	3.9	1 lb AP = 1 lb (about 6-3/8 cups) ready-to-serve raw lettuce
<b>Lettuce, fresh</b> <i>Romaine</i> <i>Untrimmed</i>	Pound	31.3	1/4 cup raw vegetable pieces	3.2	1 lb AP = 0.64 lb ready-to-serve raw lettuce
	Pound	20.9	1/4 cup raw vegetable pieces with dressing	4.8	
<b>LIMES</b>					
<b>Limes, fresh</b> <i>Whole</i>	Pound	3.50	1/4 cup fruit juice	28.6	1 lb AP = 0.47 lb (about 7/8 cup) juice
<b>MALANGA (TARO)</b>					
<b>Malanga (Taro), fresh</b> <i>Whole</i>	Pound	11.2	1/4 cup raw, peeled, diced vegetable	9.0	1 lb AP = 0.89 lb (about 2-3/4 cups) ready-to-cook, peeled, diced taro
	Pound	7.95	1/4 cup peeled, diced, cooked vegetable	12.6	1 lb AP = 1.07 lb (about 1-7/8 cups) cooked, peeled, diced vegetable

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>MANGOES</b>					
<b>Mangoes, fresh</b> <i>Whole</i>	Pound	7.60	1/4 cup cubed or sliced fruit	13.2	1 lb AP = 0.69 lb ready-to-serve raw mango
<b>MIRLITON (see CHAYOTE)</b>					
<b>MUSHROOMS</b>					
<b>Mushrooms, fresh</b> <i>Whole</i>	Pound	18.7	1/4 cup raw, sliced vegetable	5.4	1 lb AP = 0.98 lb ready-to-cook mushrooms
	Pound	8.30	1/4 cup sliced, cooked, drained vegetable	12.1	1 lb AP = 0.43 lb cooked, sliced mushrooms
<b>Mushrooms, fresh</b> <i>Slices</i> <i>Ready-to-use</i>	Pound	18.5	1/4 cup sliced vegetable (about 7 slices)	5.5	1 lb AP = 1 lb (about 4-5/8 cups) ready-to-serve mushrooms
<b>Mushrooms, canned</b>	No. 10 can (68 oz drained weight)	49.4	1/4 cup drained vegetable	2.1	1 No. 10 can = 12-1/3 cups drained mushrooms
	Pound (drained weight)	11.6	1/4 cup drained vegetable	8.7	
	No. 300 can (8 oz drained weight)	5.80	1/4 cup drained vegetable	17.3	1 No. 300 can = about 1-1/2 cups drained mushrooms
<b>Mushrooms, frozen</b> <i>Slices</i>	Pound	12.2	1/4 cup tempered vegetable	8.2	1 lb AP = 0.90 lb (about 3 cups) ready-to-serve, tempered mushrooms
<b>MUSTARD GREENS</b>					
<b>Mustard greens, fresh</b> <i>Trimmed</i> <i>Without stems</i>	Pound	49.2	1/4 cup raw vegetable pieces	2.1	1 lb AP = 0.99 lb (about 12-1/8 cups) ready-to-serve or -cook greens
	Pound	14.1	1/4 cup cooked, drained vegetable	7.1	
<b>Mustard greens, fresh</b> <i>Untrimmed</i>	Pound	13.2	1/4 cup cooked, drained vegetable	7.6	1 lb AP = 0.93 lb ready-to-cook greens

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### MUSTARD GREENS (continued)

Mustard Greens, canned	No. 10 can (101 oz)	31.0	1/4 cup drained vegetable	3.3	1 No. 10 can = about 61.0 oz (7-3/4 cups) drained greens
	No. 10 can (101 oz)	20.3	1/4 cup heated, drained vegetable	5.0	1 No. 10 can = about 40.1 oz (5 cups) drained greens
	No. 2-1/2 can (27 oz)	11.8	1/4 cup drained vegetable	8.5	1 No. 2-1/2 can = about 15.9 oz (2-3/4 cups) drained greens
	No. 300 can (14-1/2 oz)	3.81	1/4 cup drained vegetable	26.3	
	No. 300 can (14-1/2 oz)	2.74	1/4 cup heated, drained vegetable	36.5	
Mustard Greens, frozen <i>Chopped</i>	Pound	11.6	1/4 cup cooked, drained vegetable	8.7	
Mustard Greens, frozen <i>Leaf</i>	Pound	12.3	1/4 cup cooked, drained vegetable	8.2	

### NECTARINES

Nectarines, fresh <i>All sizes</i>	Pound	10.7	1/4 cup unpeeled, diced fruit	9.4	1 lb AP = 0.88 lb ready-to-serve unpeeled, 1/2-inch nectarine slices
Nectarines, fresh Size 88-96 (2-1/4 inch diameter) <i>Whole</i>	Pound	4.40	1 whole, raw nectarine (about 1/2 cup fruit)	22.8	
	Pound	8.80	1/4 cup fruit and juice (about 1/2 nectarine)	11.4	
Nectarines, fresh Size 56-64 (2-3/4 inch diameter) <i>Whole</i>	Pound	3.05	1 whole, raw nectarine (about 3/4 cup fruit)	32.8	
	Pound	9.15	1/4 cup fruit and juice (about 1/3 nectarine)	11.0	

### NOPALES (see CACTUS)



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<b>OKRA</b>					
<b>Okra, fresh</b> <i>Whole</i>	Pound	9.70	1/4 cup cooked, drained whole vegetable	10.4	1 lb AP = 0.87 lb ready-to-cook okra
	Pound	9.00	1/4 cup cooked, drained sliced vegetable	11.2	
<b>Okra, canned</b> <i>Cut</i>	No. 10 can (99 oz)	38.8	1/4 cup heated, drained vegetable	2.6	1 No. 10 can = about 60.0 oz (10-1/8 cups) drained okra
	Pound	6.20	1/4 cup heated, drained vegetable	16.2	
	No. 300 can (14 oz)	4.58	1/4 cup heated, drained vegetable	21.9	1 No. 300 can = about 7.1 oz (1-1/8 cups) drained okra
<b>Okra, frozen</b> <i>Cut</i>	Pound	9.10	1/4 cup cooked, drained vegetable	11.0	
<b>Okra, frozen</b> <i>Whole</i>	Pound	11.8	1/4 cup cooked, drained vegetable	8.5	
<b>OLIVES</b>					
<b>Olives, canned</b> <i>Green Stuffed</i>	No. 10 can (72 oz drained weight)	55.5	1/4 cup drained vegetable	1.9	
	Pound (drained weight)	12.3	1/4 cup drained vegetable	8.2	
<b>Olives, canned</b> <i>Green Whole With pits</i>	1 gal (65 oz drained weight)	60.4	1/4 cup whole, pitted vegetable (about 14 small olives)	1.7	1 gallon = about 848 olives
	Pound (drained weight)	14.8	1/4 cup pitted vegetable	6.8	
<b>Olives, canned</b> <i>Green Whole Pitted</i>	1 gal (69 oz drained weight)	63.9	1/4 cup whole vegetable (about 14 small olives)	1.6	1 gallon = about 16 cups drained or 847 olives

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<b>OLIVES (continued)</b>					
<b>Olives, canned</b> <i>Ripe</i> <i>Pitted</i> <i>Large</i> <i>Whole</i>	No. 10 can (50 oz drained weight)	48.0	1/4 cup whole vegetable (about 8 large olives)	2.1	1 No. 10 can = about 380 olives
	No. 10 can (50 oz drained weight)	42.0	1/4 cup chopped vegetable	2.4	
	Pound (drained weight)	15.3	1/4 cup whole vegetable	6.6	
	Pound (drained weight)	12.9	1/4 cup chopped vegetable	7.8	
<b>Olives, canned</b> <i>Ripe</i> <i>Sliced</i>	No. 10 can (103 oz net)	47.9	1/4 cup sliced vegetable	2.1	1 No. 10 can = about 56.0 oz (11-7/8 cups) drained olives
<b>Olives, frozen</b> <i>Ripe</i> <i>1/4-inch slices</i>	Pound	14.9	1/4 cup tempered vegetable slices	6.8	1 lb AP = 0.99 lb (about 3-2/3 cups) ready-to-serve tempered olives
<b>ONIONS, GREEN</b>					
<b>Onions, Green, fresh</b> <i>Whole</i>	Pound	15.0	1/4 cup raw vegetable, with tops	6.7	1 lb AP = 0.83 lb ready-to-serve raw onions with tops
	Pound	13.8	1/4 cup cooked with tops	7.3	
	Pound	6.70	1/4 cup raw, chopped or sliced vegetable without tops	15.0	1 lb AP = 0.37 lb ready-to-serve, raw onions without tops
<b>ONIONS, MATURE</b>					
<b>Onions, Mature, fresh</b> <i>All sizes</i> <i>Whole</i>	Pound	9.30	1/4 cup raw, chopped vegetable	10.8	1 lb AP = 0.88 lb ready-to-cook or -serve raw onion
	Pound	14.2	1/4 cup raw, sliced vegetable	7.1	
	Pound	7.90	1/4 cup cooked vegetable pieces	12.7	1 lb AP = 0.78 lb cooked onion
	Pound	7.10	1/4 cup cooked, whole vegetable	14.1	

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<b>ONIONS MATURE (continued)</b>					
<b>Onions, Mature, fresh</b> <i>Yellow Jumbo Whole</i>	Pound	5.70	1/4 cup sliced, grilled vegetable	17.6	1 lb AP = 0.65 lb (about 1-3/8 cups) peeled, sliced, cooked onion Jumbo = 3-inch diameter and over
<b>Onions, Mature, fresh</b> <i>Diced Ready-to-use</i>	Pound	12.6	1/4 cup diced, raw vegetable	8.0	1 lb AP = 1 lb (about 3-1/8 cups) ready-to-serve or -cook raw, 1/4-inch diced onion
<b>Onions, Mature, fresh</b> <i>Sliced Ready-to-use</i>	Pound	12.7	1/4 cup sliced, raw vegetable	7.9	1 lb AP = 1 lb ready-to-serve or -cook onion
<b>Onions, Mature, canned</b> <i>Whole</i>	No. 10 can (105 oz)	26.6	1/4 cup heated vegetable	3.8	1 No. 10 can = about 55.8 oz (6-2/3 cups) heated, drained onion
	Pound	4.90	1/4 cup heated, drained vegetable	20.5	
	15 oz jar	5.10	1/4 cup vegetable (about 5 onions)	19.7	15 oz jar = about 9.0 oz (1-1/4 cups) drained or about 23 onions
<b>Onions, Mature, frozen</b> <i>Chopped</i>	Pound	7.92	1/4 cup thawed vegetable	12.7	1 lb AP = 0.80 lb (about 1-7/8 cups) ready-to-cook thawed onion
	Pound	5.94	1/4 cup cooked vegetable	16.9	1 lb AP = 0.67 lb (about 1-3/8 cups) cooked onion
<b>Onions, Mature, dehydrated</b> <i>Chopped</i>	Pound	49.9	1/4 cup rehydrated, cooked vegetable	2.1	1 lb dry = about 4-2/3 cups dehydrated onion
	Pound	18.7	1/4 cup uncooked, rehydrated vegetable	5.4	
<b>ORANGES</b>					
<b>Oranges, fresh</b> <i>All sizes Whole Includes USDA Commodity</i>	Pound	3.50	1/4 cup fruit sections membrane removed, drained	28.6	1 lb AP = 0.40 lb ready-to-serve oranges
	Pound	3.60	1/4 cup fruit juice	27.8	1 lb AP = 0.48 lb (7/8 cup) juice



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>ORANGES (continued)</b>					
<b>Oranges, fresh</b> 138 count <i>Arizona or California</i> Whole	Pound	3.40	1 orange (about 1/2 cup fruit and juice)	29.5	
	Pound	6.80	1/4 cup fruit and juice (about 1/2 orange)	14.8	
<b>Oranges, fresh</b> 125 count <i>Florida or Texas</i> Whole	Pound	2.90	1 orange (about 5/8 cup fruit and juice)	34.5	
	Pound	7.02	1/4 cup fruit and juice (about 1/2 orange)	14.3	1 lb AP = about 0.76 lb (1-3/4 cups) ready-to-serve peeled orange
<b>Oranges, fresh</b> 113 count <i>Arizona or California</i> Whole	Pound	2.80	1 orange (about 5/8 cup fruit and juice)	35.8	
	Pound	5.60	1/4 cup fruit and juice (about 1/2 orange)	17.9	
<b>Oranges, canned</b> <i>Mandarin</i>	Pound	7.30	1/4 cup fruit and juice	13.7	1 lb AP = about 0.61 lb (about 1-1/2 cups) drained oranges
<b>PAPAYA</b>					
<b>Papaya, fresh</b> Whole	Pound	8.60	1/4 cup cubed fruit	11.7	1 lb AP = about 0.67 lb ready-to-serve papaya
	Pound	5.10	1/4 cup mashed fruit	19.7	
<b>Papaya, frozen</b> Puree	30 oz container	12.8	1/4 cup fruit puree	7.9	30 oz container = about 3-1/4 cups thawed papaya puree
	Pound	7.21	1/4 cup fruit puree	13.9	1 lb AP = about 1-3/4 cups thawed papaya puree
<b>PARSLEY</b>					
<b>Parsley, fresh</b> <i>Curly</i>	Pound	83.4	1/4 cup chopped, raw vegetable	1.2	1 lb AP = 0.92 lb ready-to-serve raw parsley
<b>PARSNIPS</b>					
<b>Parsnips, fresh</b> Whole	Pound	8.10	1/4 cup cooked, drained vegetable pieces	12.4	1 lb AP = 0.83 lb ready-to-cook parsnips
	Pound	7.20	1/4 cup cooked, drained, mashed vegetable	13.9	

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PASSION FRUIT</b>					
<b>Passion Fruit, fresh</b> <i>Whole</i>	Pound	3.45	1/4 cup juice and pulp (no seeds)	29.0	1 lb AP = 0.45 lb (about 1-3/4 cups) ready-to-serve seedless, raw passion fruit juice and pulp
<b>PEACHES</b>					
<b>Peaches, fresh</b> <i>Size 84 (small)</i> (2-1/8 inch diameter) <i>Whole</i>	Pound	5.50	1 whole, raw, small peach (about 3/8 cup fruit)	18.2	
	Pound	11.0	1/4 cup fruit (about 1/2 peach)	9.1	
<b>Peaches, fresh</b> <i>Size 80</i> <i>Whole</i>	Pound	4.50	1 whole, raw peach (about 1/2 cup fruit)	22.3	
	Pound	9.00	1/4 cup fruit (about 1/2 peach)	11.2	
	Pound	10.7	1/4 cup raw, sliced fruit (about 3 slices, 1/2-inch thick slices)	9.4	1 lb AP = 0.93 lb (about 2-2/3 cups) ready-to-serve unpeeled, pitted, sliced peach
	Pound	10.2	1/4 cup raw, diced fruit	9.9	1 lb AP = 0.93 lb (about 2-1/2 cups) ready-to-serve unpeeled, pitted, diced peach
<b>Peaches, fresh</b> <i>Size 64 &amp; 60</i> (medium) (2-1/2 inch diameter) <i>Whole</i>	Pound	2.70	1 whole raw peach (about 2/3 cup fruit)	37.1	1 lb AP = 0.76 lb ready-to-cook or -serve unpeeled, pitted raw peach
	Pound	5.40	1/4 cup fruit (about 1/3 peach)	18.6	
	Pound	5.10	1/4 cup raw, diced fruit	19.7	
	Pound	7.70	1/4 cup raw, sliced fruit	13.0	
	Pound	7.40	1/4 cup cooked, sliced fruit, sugar added	13.6	

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PEACHES (continued)</b>					
<b>Peaches, fresh</b> Size 56 Whole	Pound	2.89	1 whole raw peach (about 3/4 cup fruit)	34.7	1 lb AP = 0.96 lb (about 2-2/3 cups) ready-to-serve unpeeled, pitted, diced peach
	Pound	8.67	1/4 cup fruit (about 1/3 peach)	11.6	
<b>Peaches, canned</b> Cling Diced Light syrup pack Includes USDA Commodity	No. 10 can (106 oz)	48.6	1/4 cup fruit and juice	2.1	1 No. 10 can = about 12-1/8 cups fruit and juice
	No. 10 can (106 oz)	35.4	1/4 cup drained fruit	2.9	1 No. 10 can = about 79.0 oz (8-3/4 cups) drained peaches
	No. 2-1/2 can (29 oz)	13.3	1/4 cup fruit and juice	7.6	1 No. 2-1/2 can = about 3-1/3 cups peaches and juice
	No. 2-1/2 can (29 oz)	9.10	1/4 cup drained fruit	11.0	1 No. 2-1/2 can = about 17.5 oz (2-1/4 cups) drained peaches
	Pound	7.33	1/4 cup fruit and juice	13.7	1 lb AP = about 9.8 oz (1-1/4 cups) drained peaches
	Pound	5.34	1/4 cup drained fruit	18.8	
<b>Peaches, canned</b> Cling or Freestone Halves Includes USDA Commodity	No. 10 can (106 oz)	47.1	1/4 cup fruit and juice (about 1 peach half with juice)	2.2	1 No. 10 can = about 64.0 oz (8-1/8 cups) drained clings or about 60.0 oz (6-2/3 cups) drained Freestones
	No. 2-1/2 can (29 oz)	12.9	1/4 cup fruit and juice	7.8	1 No. 2-1/2 can = about 17.0 oz (2-1/8 cups) drained clings or about 15.7 oz (2 cups) drained Freestones
	No. 300 can (15 oz)	6.36	1/4 cup fruit and juice	15.8	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PEACHES (continued)</b>					
<b>Peaches, canned</b> <i>Cling Sliced</i> <i>Packed in light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	50.0	1/4 cup fruit and juice	2.0	1 No. 10 can = about 105.0 oz (12-1/2 cups) fruit and juice
	No. 10 can (105 oz)	36.1	1/4 cup drained fruit	2.8	1 No. 10 can = about 72.0 oz (9 cups) drained peaches
<b>Peaches, canned</b> <i>Cling Quarters</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	48.5	1/4 cup fruit and juice	2.1	1 No. 10 can = about 71.0 oz (9-7/8 cups) drained peaches
<b>Peaches, canned</b> <i>Freestone Sliced</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	47.5	1/4 cup fruit and juice	2.2	1 No. 10 can = about 60.0 oz (6-3/4 cups) drained Freestones
	No. 2-1/2 can (29 oz)	13.0	1/4 cup fruit and juice	7.7	1 No. 2-1/2 can = about 15.7 oz (2 cups) drained Freestones
	No. 300 can (16 oz)	6.40	1/4 cup fruit and juice	15.7	1 No. 300 can = about 8.1 oz (3/4 cup) drained Freestones
<b>Peaches, canned</b> <i>Spiced Whole</i>	Pound	2.70	2 small peaches (about 1/4 cup pitted fruit)	37.1	1 lb AP = 0.34 lb drained, pitted peaches
<b>Peaches, frozen</b> <i>Diced Sweetened</i>	No. 12 tub (136 oz)	64.0	1/4 cup thawed fruit and juice	1.6	1 No. 12 tub = about 136.0 oz (16 cups) thawed peaches and juice
	No. 12 tub (136 oz)	47.9	1/4 cup thawed, drained fruit	2.1	1 No. 12 tub = about 102.4 oz (12 cups) thawed, drained fruit
	Pound	7.47	1/4 cup thawed fruit and juice	13.4	1 lb AP = 1 lb (about 1-3/4 cups) thawed fruit and juice
	Pound	5.60	1/4 cup thawed, drained fruit	17.9	1 lb AP = 0.72 lb (about 1-3/8 cups) thawed, drained fruit

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PEACHES (continued)</b>					
<b>Peaches, frozen</b> <i>Sliced Sweetened or Unsweetened Includes USDA Commodity</i>	Pound	7.34	1/4 cup thawed fruit and juice	13.7	1 lb AP = about 1-3/4 cups thawed peaches and juice
	Pound	5.46	1/4 cup thawed, drained fruit	18.4	1 lb AP = 0.97 lb (about 1-1/3 cups) thawed, drained peaches
	Pound	7.10	1/4 cup cooked fruit	14.1	
	20 lb Bag	147.4	1/4 cup thawed fruit and juice	0.68	20 lb Bag = about 36-7/8 cups thawed peaches and juice
	20 lb Bag	109.3	1/4 cup thawed, drained fruit	0.92	20 lb Bag = about 27-1/3 cups thawed, drained peaches
	20 lb bag	142.0	1/4 cup cooked fruit	0.71	
<b>Peaches, dehydrated</b> <i>Halves</i>	Pound	12.7	1/4 cup dehydrated fruit	7.9	1 lb AP = about 3-1/8 cups ready-to-serve dehydrated peach halves
	Pound	22.9	1/4 cup cooked fruit and juice	4.4	
<b>PEARS</b>					
<b>Pears, fresh</b> <i>All sizes Whole Includes USDA Commodity</i>	Pound	7.90	1/4 cup raw, pared, sliced fruit	12.7	
	Pound	5.70	1/4 cup cooked, pared, fruit halves, sugar added	17.6	
<b>Pears, fresh</b> <i>150 count Whole</i>	Pound	4.10	1 whole, raw pear (about 1/2 cup fruit)	24.4	1 lb AP = 0.92 lb ready-to-cook or -serve raw, unpared pears
<b>Pears, fresh</b> <i>120 count Whole</i>	Pound	3.30	1 whole, raw, medium pear (about 3/4 cup fruit)	30.4	
	Pound	7.10	1/4 cup raw, pared, cubed fruit	14.1	1 lb AP = 0.78 lb ready-to-cook or -serve raw, pared pears
<b>Pears, fresh</b> <i>100 count D'Anjou or Bosc or Bartlett Whole</i>	Pound	2.29	1 whole, raw pear (about 1-1/4 cups fruit and juice)	43.7	1 lb AP = 0.94 lb (about 3 cups) ready-to-cook or -serve raw, cored, wedged pear

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PEARS (continued)</b>					
<b>Pears, canned</b> <i>Diced</i> <i>Packed in juice or light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	47.6	1/4 cup fruit and juice	2.2	1 No. 10 can = about 66.0 oz (9-1/2 cups) drained pears
	No. 2-1/2 can (29 oz)	13.1	1/4 cup fruit and juice	7.7	1 No. 2-1/2 can = about 18.4 oz (2-5/8 cups) drained pears
	Pound	7.20	1/4 cup fruit and juice	13.9	1 lb AP = about 10.2 oz (1-1/2 cups) drained pears
<b>Pears, canned</b> <i>Halves</i> <i>Packed in juice or light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	52.0	1/4 cup fruit and juice (about 1 pear half with juice)	2.0	1 No. 10 can = about 62.0 oz (7-3/4 cups) drained pears
	No. 2-1/2 can (29 oz)	14.3	1/4 cup fruit and juice (about 1 pear half with juice)	7.0	1 No. 2-1/2 can = about 15.8 oz (2 cups) drained pears
	No. 300 can (15 oz)	7.02	1/4 cup fruit and juice (about 1 pear half with juice)	14.3	1 No. 300 can = about 7.3 oz (3/4 cup) drained pears
<b>Pears, canned</b> <i>Sliced</i> <i>Packed in juice or light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	49.7	1/4 cup fruit and juice	2.1	1 No. 10 can = about 12-3/8 cups pears and juice
	No 10 can (105 oz)	29.5	1/4 cup drained fruit	3.4	1 No. 10 can = about 59.6 oz (7-3/8 cups) drained pears
<b>Pears, dehydrated</b> <i>Regular moisture</i> <i>Halves</i>	Pound	10.7	1/4 cup dehydrated fruit (about 2-1/2 halves)	9.4	1 lb AP = about 2-2/3 cups or 22 dehydrated pear halves
	Pound	20.3	1/4 cup cooked fruit and juice	5.0	
<b>PEAS, BLACKEYED (see BEANS, BLACKEYED)</b>					
<b>PEAS, CHINESE SNOW</b>					
<b>Peas, Chinese Snow, frozen</b> <i>Edible podded</i> <i>Whole</i>	Pound	11.4	1/4 cup cooked, drained vegetable	8.8	



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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PEAS, FIELD</b>					
<b>Peas, Field, canned</b> <i>With snaps</i>	No. 10 can (111 oz)	37.6	1/4 cup heated, drained vegetable	2.7	1 No. 10 can = about 72.3 oz (9-3/8 cups) heated, drained field peas with snaps
	No. 10 can (111 oz)	46.3	1/4 cup drained vegetable	2.2	1 No. 10 can = about 85.5 oz (11-1/2 cups) drained, unheated field peas with snaps
	No. 300 can (15 oz)	5.12	1/4 cup heated, drained vegetable	19.6	1 No. 300 can = about 7.95 oz (1-1/4 cups) heated, drained field peas with snaps
	No. 300 can (15 oz)	5.59	1/4 cup drained vegetable	17.9	1 No. 300 can = about 8.52 oz (1-3/8 cups) drained, unheated field peas with snaps
<b>PEAS, GREEN</b>					
<b>Peas, Green, fresh</b> <i>Shelled</i>	Pound	10.6	1/4 cup cooked, drained vegetable	9.5	1 lb in pod = 0.38 lb ready-to-cook peas
<b>Peas, Green, canned</b> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	36.7	1/4 cup heated, drained vegetable	2.8	1 No. 10 can = about 68.0 oz (9-1/8 cups) heated, drained peas
	No. 10 can (106 oz)	42.0	1/4 cup drained vegetable (unheated, for salads)	2.4	1 No. 10 can = about 10-1/5 cups drained, unheated peas
	No. 300 can (15-1/4 oz)	4.95	1/4 cup heated, drained vegetable	20.3	
	No. 300 can (15-1/4 oz)	5.67	1/4 cup drained vegetable (unheated, for salads)	17.7	
<b>Peas, Green, frozen</b> <i>Includes USDA Commodity</i>	Pound	9.59	1/4 cup cooked, drained vegetable	10.5	1 lb AP = 0.98 lb (about 2-3/8 cups) cooked, drained peas
<b>Peas, Green, dry</b> <i>Whole</i>	Pound	25.6	1/4 cup cooked vegetable	4.0	1 lb dry = about 2-1/3 cups dry peas
<b>Peas, Green, dry</b> <i>Split</i> <i>Includes USDA Commodity</i>	Pound	23.1	1/4 cup cooked vegetable	4.4	1 lb dry = about 2-1/4 cups dry, split peas

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PEAS, PIGEON, GREEN</b>					
Peas, Pigeon, Green, frozen <i>Immature</i>	Pound	10.6	1/4 cup cooked, drained vegetable	9.5	1 lb AP = 0.96 lb (about 2-2/3 cups) cooked, drained peas
<b>PEAS, SUGAR SNAP</b>					
Peas, Sugar Snap, frozen <i>Whole</i>	Pound	9.78	1/4 cup cooked, drained vegetable	10.3	1 lb AP = 1 lb (about 2-3/8 cups) cooked, drained peas
<b>PEAS AND CARROTS</b>					
Peas and Carrots, canned	No. 10 can (105 oz)	41.3	1/4 cup heated, drained vegetable	2.5	1 No. 10 can = about 66.0 oz (11-1/2 cups) drained, unheated vegetable
	Pound	6.30	1/4 cup heated, drained vegetable	15.9	
Peas and Carrots, frozen	Pound	10.9	1/4 cup cooked, drained vegetable	9.2	
<b>PEPPEROCINI</b>					
Pepperocini, canned <i>Whole</i>	1 gal (72 oz drained weight)	64.0	1/4 cup drained vegetable	1.6	1 gallon container = about 207 pepperocini
<b>PEPPERS, BELL</b>					
Peppers, Bell, fresh <i>Green or Red Medium or Large Whole</i>	Pound	9.70	1/4 cup chopped or diced, raw vegetable	10.4	1 lb AP = 0.80 lb ready-to-serve or -cook raw pepper
	Pound	14.7	1/4 cup raw vegetable strips	6.9	1 lb AP = 0.73 lb cooked pepper
	Pound	9.80	1/4 cup cooked, drained vegetable strips	10.3	
Peppers, Bell, frozen <i>Green or Red Diced</i>	Pound	12.1	1/4 cup thawed vegetable	8.3	1 lb AP = 1 lb (about 3 cups) thawed peppers
	Pound	7.30	1/4 cup cooked, drained vegetable	13.7	



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<b>PEPPERS, BELL (continued)</b>					
<b>Peppers, Bell, dehydrated</b> <i>Diced</i>	Pound	99.2	1/4 cup rehydrated, cooked vegetable	1.1	1 lb dry = about 9-1/4 cups dehydrated pepper
	Pound	38.6	1/4 cup dehydrated vegetable	2.6	
<b>PEPPERS, CHERRY</b>					
<b>Peppers, Cherry, fresh</b> <i>Whole with stem</i>	Pound	14.4	1/4 cup raw vegetable (about 3 peppers)	7.0	1 lb AP = 0.95 lb (about 3-1/2 cups) ready-to-serve or -cook raw pepper
<b>PEPPERS, GREEN CHILIES</b>					
<b>Peppers, Green Chilies, fresh</b> <i>Anaheim</i> <i>Whole with stem</i>	Pound	11.4	1/4 cup chopped, seeded, raw vegetable	8.8	1 lb AP = 0.80 lb (about 2-3/4 cups) ready-to-serve raw, stemmed, seeded, chopped chili pepper
<b>Peppers, Green Chilies, fresh</b> <i>Jalapeño</i> <i>Whole with stem</i>	Pound	15.6	1/4 cup raw vegetable (about 2 peppers)	6.5	1 lb AP = 0.98 lb (about 3-7/8 cups) ready-to-serve raw, whole peppers
<b>Peppers, Green Chilies, canned</b> <i>Chopped</i>	No. 10 can (103 oz)	51.4	1/4 cup heated vegetable	2.0	1 No. 10 can = about 12-7/8 cups drained peppers
	No. 10 can (99 oz)	47.1	1/4 cup unheated vegetable	2.2	1 No. 10 can = about 11-3/4 cups peppers
	Pound	7.98	1/4 cup heated vegetable	12.6	
<b>Peppers, Green Chilies, canned</b> <i>Jalapeño</i> <i>Slices</i>	No. 10 can (106 oz)	46.2	1/4 cup drained vegetable slices	2.0	1 No. 10 can = about 64.4 oz (11-1/2 cups) drained peppers
<b>Peppers, Green Chilies, canned</b> <i>Jalapeño</i> <i>Whole</i>	No. 10 can (96 oz)	35.0	1/4 cup drained, whole vegetable	2.9	1 No. 10 can = about 60.0 oz (8-3/4 cups) drained peppers



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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PERSIMMONS</b>					
<b>Persimmons, fresh</b> <i>Japanese Fuyu</i> <i>Whole</i>	Pound	11.7	1/4 cup unpeeled, diced raw fruit	8.6	1 lb AP = 0.98 lb (about 2-7/8 cups) ready-to-serve raw, 1/2-inch diced, unpeeled persimmon
	Pound	15.7	1/4 cup unpeeled, raw fruit wedges	6.4	1 lb AP = 0.98 lb (about 3-7/8 cups) ready-to-serve raw, unpeeled persimmon wedges
<b>PICKLES</b>					
<b>Pickles, canned</b> <i>Chips</i>	1 Quart (about 20 oz drained weight)	13.9	1/4 cup drained vegetable	7.2	1 quart container = about 3-1/2 cups drained or 52 pickle chips
	1 gal (about 87 oz drained weight)	60.3	1/4 cup drained vegetable	1.7	
	Pound (drained weight)	11.1	1/4 cup drained vegetable	9.1	
<b>Pickles, canned</b> <i>Spears</i> <i>Medium size</i> <i>4.75 x 0.75 x 1.5-inches</i>	24 oz jar (about 15.4 oz drained weight)	8.80	1/4 cup drained vegetable (about 1-1/4 spears)	11.4	24 oz container = about 2-1/4 cups chopped, drained or 11 whole pickle spears
<b>Pickles, canned</b> <i>Whole</i>	1 gal (about 87 oz drained weight)	55.2	1/4 cup whole vegetable (about: 3-3/4 gherkins-small, 1-1/4 gherkins-large, 1 small pickle, 1/2 medium pickle, 1/3 large pickle, 1/4 extra large pickle)	1.9	Length of pickles: gherkins = 2 - 2-3/4 inch, small = 2-3/4 - 3-1/2 inch, medium = 3-1/2 - 4 inch, large = 4 - 4-3/4 inch, extra-large = 4-3/4 - 5-1/4 inch
	1 gal (about 87 oz drained weight)	84.4	1/8 cup length-wise sliced vegetable	1.2	
	1 gal (about 87 oz drained weight)	108.0	1/8 cup chopped vegetable	1.0	

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<b>PIMIENTOS (PIMENTOS)</b>					
<b>Pimientos, canned</b> <i>Chopped or Diced</i>	No. 10 can (102 oz)	40.7	1/4 cup drained vegetable	2.5	1 No. 10 can = about 74.0 oz (10-1/8 cups) drained pimientos
	No. 2-1/2 can (27-1/2 oz)	8.39	1/4 cup drained vegetable	12.0	1 No. 2-1/2 can = about 17.6 oz (2 cups) drained pimientos
	Pound	6.40	1/4 cup drained vegetable	15.7	
<b>Pimientos, canned</b> <i>Whole</i>	No. 10 can (102 oz)	38.5	1/4 cup drained, chopped vegetable	2.6	1 No. 10 can = about 71.0 oz (9-3/4 cups) drained pimientos
	No. 2-1/2 can (28 oz)	11.0	1/4 cup drained, chopped vegetable	9.1	1 No. 2-1/2 can = about 20.2 oz (2-3/4 cups) drained pimientos
	No. 300 can (13-3/4 oz)	4.97	1/4 cup drained vegetable	20.2	1 No. 300 can = about 9.2 oz (1-1/8 cups) drained pimientos
	7 oz can	2.80	1/4 cup drained, chopped vegetable	35.8	7 oz can = about 5.2 oz (2/3 cup) drained pimientos
	Pound	6.03	1/4 cup drained, chopped vegetable	16.6	
<b>PINEAPPLE</b>					
<b>Pineapple, fresh</b> <i>Whole</i>	Pound	6.40	1/4 cup raw, cubed fruit	15.7	1 lb AP = 0.54 lb ready-to-serve raw pineapple
	Pound	4.61	1/4 cup raw sticks (about 3 sticks, 1/2-inch by 3-inch sticks)	21.7	1 lb AP = 0.57 lb (about 1-1/8 cups) ready-to-serve 1/2-inch by 3-inch pineapple sticks
	Pound	7.50	1/4 cup fruit and juice	13.4	

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PINEAPPLE (continued)</b>					
<b>Pineapple, canned</b> <i>Chunks</i> <i>Packed in juice or light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	49.9	1/4 cup fruit and syrup	2.1	1 No. 10 can = about 12-3/8 cups pineapple and juice
	No. 10 can (106 oz)	31.8	1/4 cup drained fruit	3.2	1 No. 10 can = about 64.6 oz (8 cups) drained pineapple
	No. 2 can (20 oz)	9.40	1/4 cup fruit and syrup	10.7	1 No. 2 can = about 12.4 oz (1-7/8 cups) drained pineapple
<b>Pineapple, canned</b> <i>Crushed</i> <i>Packed in juice or light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	49.5	1/4 cup fruit and juice	2.1	1 No. 10 can = about 12-3/8 cups pineapple and juice
	No. 10 can (106 oz)	36.1	1/4 cup drained fruit	2.8	1 No. 10 can = about 75.6 oz (9 cups) drained pineapple
	No. 2 can (20 oz)	9.20	1/4 cup fruit and juice	10.9	1 No. 2 can = about 13.8 oz (2 cups) drained pineapple
	Pound	7.56	1/4 cup fruit and juice	13.3	
<b>Pineapple, canned</b> <i>Slices</i> <i>Packed in juice or light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (107 oz)	47.5	1/4 cup fruit and juice	2.2	1 No. 10 can = about 62.0 oz (9-1/3 cups or 66 slices) drained pineapple
	No. 10 can (107 oz)	37.7	1/4 cup drained fruit (about 1-3/4 slices)	2.7	
	No. 2 can (20 oz)	8.87	1/4 cup fruit and juice	11.3	1 No. 2 can = about 13.0 oz (2 cups) drained pineapple
	No. 2 can (20 oz)	7.04	1/4 cup drained fruit	14.3	
	Pound	7.10	1/4 cup fruit and juice	14.1	
	Pound	5.63	1/4 cup drained fruit	17.8	
<b>Pineapple, canned</b> <i>Tidbits</i> <i>Packed in juice or light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	50.1	1/4 cup fruit and juice	2.0	1 No. 10 can = about 12 cups pineapple and juice
	No. 10 can (106 oz)	33.4	1/4 cup drained fruit	3.0	1 No. 10 can = about 67.3 oz (8-1/4 cups) drained pineapple



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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PINEAPPLE (continued)</b>					
<b>Pineapple, frozen</b> <i>Chunks</i>	Pound	7.30	1/4 cup thawed, drained fruit	13.7	1 lb AP = 0.61 lb (about 1-1/3 cups) thawed, drained pineapple
<b>PLANTAIN</b>					
<b>Plantain, fresh</b> <i>Green</i>	Pound	7.50	1/4 cup peeled, sliced, cooked fruit	13.4	1 lb = 0.62 lb ready-to-cook peeled, sliced plantains
<b>Plantain, fresh</b> <i>Ripe</i>	Pound	5.60	1/4 cup peeled, sliced, cooked fruit	17.9	1 lb = 0.65 lb ready-to-cook peeled, sliced plantains
<b>PLUMS</b>					
<b>Plums, fresh</b> <i>Italian</i> 1.5-inch by 2-inch <i>Whole</i>	Pound	9.32	1/4 cup quartered fruit (about 5 quarters)	10.8	1 lb AP = 0.93 lb (about 2-1/3 cups) ready-to-cook or -serve unpeeled, pitted, quartered, raw plum
<b>Plums, fresh</b> <i>Purple, Red, or Black</i> Size 45 & 50 2-inch diameter <i>Whole</i>	Pound	4.99	1 whole, raw plum (about 1/2 cup fruit and juice)	20.1	1 lb AP = 0.98 lb (about 2-2/3 cups) ready-to-cook or -serve unpeeled, pitted, raw plum
	Pound	10.7	1/4 cup fruit, quartered (about 2 quarters)	9.4	
<b>Plums, fresh</b> <i>Japanese or Hybrid</i> Size 60 & 65 <i>Whole</i>	Pound	6.40	1 whole, raw plum (about 3/8 cup fruit and juice)	15.7	1 plum = about 1-1/2 inch diameter
<b>Plums, canned</b> <i>Purple or Red</i> <i>Halves</i> <i>Unpeeled</i> <i>No pits</i> <i>Includes USDA Commodity</i>	No. 10 can (105 oz)	49.2	1/4 cup fruit and juice	2.1	1 No. 10 can = about 12-1/8 cups plums and juice without pits
	No. 10 can (105 oz)	24.7	1/4 cup drained fruit	4.1	1 No. 10 can = about 54.4 oz (6-1/8 cups) drained plums without pits

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PLUMS<sup>8</sup> (continued)</b>					
<b>Plums, canned</b> <i>Purple or Red</i> <i>Unpeeled</i> <i>With pits</i> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	48.5	1/4 cup pitted fruit and juice	2.1	1 No. 10 can = about 12 cups plums with pits and juice
	No. 10 can (106 oz)	27.8	1/4 cup pitted drained fruit	3.6	1 No. 10 can = about 58.2 oz (6-7/8 cups) drained plums with pits
	No. 2-1/2 can (30 oz)	14.5	1/4 cup pitted fruit and juice	6.9	1 No. 2-1/2 can = about 16.5 oz (2 cups) drained plums with pits
	Pound	7.32	1/4 cup pitted fruit and juice	13.7	1 lb AP = 8.8 oz (1 cup) drained plums with pits
	Pound	4.19	1/4 cup pitted drained fruit	23.9	
<b>Plums, dehydrated (Prunes), canned</b> <i>With pits</i>	No. 10 can (108 oz)	46.0	1/4 cup fruit and juice (about 4 prunes with juice)	2.2	1 No. 10 can = about 57.0 oz (7-1/8 cups) drained, pitted prunes
	25 oz jar	10.6	1/4 cup fruit and juice	9.5	25 oz jar = about 13.2 oz (1-2/3 cups) drained, pitted prunes
	Pound	6.81	1/4 cup fruit and juice	14.7	
<b>Plums, dehydrated (Prunes), canned<sup>8</sup></b> <i>Paste or Puree</i> <i>USDA Commodity</i>	1 gal (11 lb)	64.0	1/4 cup fruit puree	1.6	1 gallon (11 lb) = 16 cups dehydrated plum puree
	Pound	6.38	1/4 cup fruit puree	15.7	1 lb AP = about 1-1/2 cups puree
<b>Plums, dehydrated (Prunes)</b> <i>Whole</i> <i>Regular moisture</i> <i>With pits</i>	Pound	9.60	1/4 cup dehydrated fruit (about 6 medium prunes)	10.5	1 lb dry = about 2-3/8 cups dehydrated plums with pits
	Pound	12.9	1/4 cup cooked fruit and juice	7.8	
<b>Plums, dehydrated (Prunes)</b> <i>Whole</i> <i>Without pits</i> <i>USDA Commodity</i>	Pound	10.6	1/4 cup dehydrated fruit (about 6 medium prunes)	9.5	1 lb dry = about 2-2/3 cups dehydrated plums without pits
	Pound	14.7	1/4 cup cooked fruit and juice	6.9	

<sup>8</sup> Plum puree cannot count as fruit when it is used to replace fat in a food item.



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>POI</b>					
<b>Poi</b> <i>Undiluted</i>	Pound	5.67	1/2 cup diluted	17.7	add 1 cup water to each 1 lb bag undiluted poi
	Pound	2.83	1 cup diluted	35.4	1 lb AP = 1.52 lb (about 2-3/4 cups) diluted ready-to-serve poi
<b>POMEGRANATE</b>					
<b>Pomegranate, fresh</b> <i>Whole</i>	Pound	2.70	1/4 cup juice and pulp (no seeds)	37.1	1 lb AP = 0.35 lb (about 2/3 cups) ready-to-serve peeled, raw pomegranate juice and pulp without seeds
	Pound	6.34	1/4 cup fruit kernels	15.8	1 lb AP = about 1-1/2 cups pomegranate kernels
<b>POTATOES</b>					
<b>Potatoes, fresh</b> <i>Red</i> <i>Whole</i>	Pound	9.88	1/4 cup diced, cooked vegetable with skin	10.2	1 lb AP = 0.97 lb (about 2-3/8 cups) cooked potato
<b>Potatoes, fresh</b> <i>White or Russet</i> <i>All sizes</i> <i>Whole</i> <i>Includes USDA Commodity</i>	Pound	8.90	1/4 cup pared, cooked, diced vegetable	11.3	1 lb AP = 0.74 lb baked potato without skin
	Pound	8.40	1/4 cup pared, cooked, mashed vegetable	12.0	1 lb AP = 0.81 lb ready-to-cook pared potato
	Pound	9.90	1/4 cup pared, cooked, sliced vegetable	10.2	
	Pound	5.30	1/4 cup pared, cooked hash browns (1/4 cup vegetable)	18.9	
	Pound	9.70	1/4 cup diced, cooked vegetable with skin	10.3	1 lb AP = 0.99 lb (about 2-3/8 cups) cooked, unpeeled, diced potato
<b>Potatoes, fresh</b> <i>White or Russet</i> <i>120 Count</i> <i>(approx. 6 oz each)</i> <i>Whole</i>	Pound	2.66	1 whole, baked potato (about 1/2 cup vegetable)	37.6	1 lb AP = 0.82 lb (about 1-2/3 cups) baked potato with skin
	Pound	6.53	1/4 cup baked vegetable with skin	15.4	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>POTATOES (continued)</b>					
<b>Potatoes, fresh</b> <i>White or Russet</i> 100 Count (approx. 8 oz each) Whole	Pound	2.00	1 whole, baked potato (about 3/4 cup vegetable)	50.0	1 lb AP = 0.82 lb (about 1-2/3 cups) baked potato with skin
	Pound	6.76	1/4 cup baked vegetable with skin	14.8	
<b>Potatoes, fresh</b> <i>White or Russet</i> 80 Count (approx. 10 oz each) Whole	Pound	1.60	1 whole baked potato (about 1 cup vegetable)	62.5	1 lb AP = 0.82 lb (about 1-2/3 cups) baked potato with skin
	Pound	7.01	1/4 cup baked vegetable with skin	14.3	
<b>Potatoes, canned</b> <i>Diced</i>	No. 10 can (102 oz)	39.9	1/4 cup drained, unheated vegetable	2.6	1 No. 10 can = about 73.7 oz (9-7/8 cups) drained, unheated potato
<b>Potatoes, canned</b> <i>Sliced</i>	No. 10 can (102 oz)	44.2	1/4 cup drained, unheated vegetable	2.3	1 No. 10 can = about 74.6 oz (11 cups) drained, unheated potato
	No. 300 can (14-1/2 oz)	5.73	1/4 cup drained, unheated vegetable	17.5	1 No. 300 can = about 9.9 oz (1-3/8 cups) drained, unheated potato
<b>Potatoes, canned</b> <i>Whole</i> <i>Small</i>	No. 10 can (102 oz)	43.7	1/4 cup heated, drained vegetable	2.3	1 No. 10 can = about 10-7/8 cups heated, drained potato
	No. 10 can (102 oz)	43.4	1/4 cup drained, unheated, vegetable	2.4	1 No. 10 can = about 74.0 oz (10-3/4 cups) drained, unheated potato
	No 2-1/2 can (29 oz)	10.9	1/4 cup heated, drained vegetable	9.2	1 No. 2-1/2 can = about 17.7 oz (2-3/4 cups) drained potato
	No. 300 can (14-1/2 oz)	5.90	1/4 cup heated, drained vegetable	17.0	
<b>Potatoes, frozen</b> <i>Diced</i> <i>Precooked</i>	Pound	10.1	1/4 cup tempered, unheated vegetable	10.0	1 lb AP = 1 lb (about 2-1/2 cups) tempered potato
	Pound	8.97	1/4 cup cooked vegetable	11.2	1 lb AP = 0.83 lb (about 2-1/8 cups) cooked potato

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>POTATOES (continued)</b>					
<b>Potatoes, frozen</b> <i>Shells</i>	Pound	11.1	1/4 cup baked vegetable	9.1	1 lb AP = 0.90 lb baked potato shell
<b>Potatoes, frozen</b> <i>Wedges</i> <i>USDA Commodity</i>	Pound	11.9	1/4 cup baked vegetable	8.5	1 lb AP = 0.71 lb (about 2-7/8 cups) baked potato
	5 lb pkg	59.5	1/4 cup baked vegetable	1.7	5 lb bag = about 14-7/8 cups baked potato
<b>Potatoes, frozen</b> <i>Whole</i> <i>Small</i>	Pound	10.1	1/4 cup cooked vegetable	10.0	
<b>Potatoes, dehydrated</b> <i>Diced</i> <i>Low moisture</i> <i>Includes USDA Commodity</i>	Pound	45.1	1/4 cup reconstituted, heated vegetable	2.3	1 lb dry = about 5-1/8 cups dehydrated diced potatoes
<b>Potatoes, dehydrated</b> <i>Flake</i> <i>Low moisture</i> <i>Includes USDA Commodity</i>	Pound	50.5	1/4 cup reconstituted, heated vegetable	2.0	1 lb dry = about 7-1/2 cups dehydrated potato flakes
<b>Potatoes, dehydrated,</b> <i>Granules</i> <i>Low moisture</i> <i>Includes USDA Commodity</i>	Pound	50.5	1/4 cup reconstituted, heated vegetable	2.0	1 lb dry = about 2-1/4 cups dehydrated potato granules
<b>Potatoes, dehydrated</b> <i>Slices</i> <i>Low moisture</i> <i>Includes USDA Commodity</i>	Pound	43.5	1/4 cup reconstituted, heated vegetable	2.3	1 lb dry = about 9-2/3 cups dehydrated potato slices
<b>POTATOES, FRENCH FRIES</b>					
<b>Potatoes, French Fries, frozen</b> <i>Crinkle cut</i> <i>Low moisture</i> <i>Ovenable</i> <i>Includes USDA Commodity</i>	Pound	16.2	1/4 cup cooked vegetable	6.2	1 lb AP = 0.92 lb (about 4 cups) baked French fries
	4 lb pkg	64.9	1/4 cup cooked vegetable	1.6	

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>POTATOES, FRENCH FRIES (continued)</b>					
<b>Potatoes, French Fries, frozen</b> <i>Crinkle cut</i> <i>Regular moisture</i>	Pound	12.6	1/4 cup cooked vegetable	8.0	1 lb AP = 0.81 lb (about 3-1/8 cups) baked French fries
	4-1/2 lb pkg	56.7	1/4 cup cooked vegetable	1.8	
<b>Potatoes, French Fries, frozen</b> <i>Curly</i> <i>(1/3-inch width)</i>	Pound	21.8	1/4 cup cooked vegetable	4.6	1 lb AP = 0.66 lb baked French fries
	4-1/2 lb pkg	79.2	1/4 cup cooked vegetable	1.3	
<b>Potatoes, French Fries, frozen</b> <i>Shoestring</i> <i>Straight cut</i> <i>Low moisture</i>	Pound	14.2	1/4 cup cooked vegetable	7.1	1 lb AP = 0.66 lb (about 3-1/2 cups) baked French fries
	4-1/2 lb pkg	72.0	1/4 cup cooked vegetable	1.4	
<b>Potatoes, French Fries, frozen</b> <i>Shoestring</i> <i>Straight cut</i> <i>Regular moisture</i>	Pound	17.5	1/4 cup cooked vegetable	5.8	
	4-1/2 lb pkg	79.0	1/4 cup cooked vegetable	1.3	
<b>Potatoes, French Fries, frozen</b> <i>Straight cut</i> <i>Regular moisture</i> <i>Ovenable</i>	Pound	14.0	1/4 cup cooked vegetable	7.2	1 lb AP = 0.63 lb (about 3-1/2 cups) baked French fries
	5 lb pkg	70.0	1/4 cup cooked vegetable	1.5	5 lb bag = about 17-1/2 cups baked French fries
<b>POTATO PRODUCTS</b>					
<b>Potato Products, fresh</b> <i>Raw</i> <i>Shredded</i> <i>Pre-portioned</i> <i>3.0 oz each</i>	Pound	5.33	3/8 cup cooked vegetable (about 1 portion)	18.8	1 lb AP= 0.94 lb cooked vegetable
	Pound	8.28	1/4 cup cooked vegetable (about 2/3 portion)	12.1	
	Pound	10.6	1/8 cup cooked vegetable (about 1/2 portion)	9.5	
<b>Potato Products, frozen</b> <i>Hashed patty</i> <i>Pre-browned</i> <i>2.25 oz each</i>	Pound	7.11	1 cooked patty (about 1/4 cup cooked vegetable)	14.1	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>POTATO PRODUCTS<sup>9</sup> (continued)</b>					
<b>Potato Products, frozen</b> <i>Hashed browns</i> <i>Diced</i>	Pound	7.70	1/4 cup cooked vegetable	13.0	
<b>Potato Products, frozen</b> <i>Mashed</i>	Pound	7.37	1/4 cup heated vegetable	13.6	1 lb AP = 1 lb (about 1-3/4 cups) mashed potatoes
<b>Potato Products, frozen</b> <i>Skins or Pieces or Wedges, etc.</i> <i>With skin</i> <i>Cooked</i>	Pound	10.6	1/4 cup heated vegetable	9.5	
<b>Potato Products, frozen</b> <i>Rounds<sup>9</sup></i> <i>Regular Size</i> <i>Includes USDA Commodity</i>	Pound	12.7	1/4 cup cooked vegetable (about 4 pieces)	7.9	5 lb bag = about 15-1/4 cups baked potato rounds (about 8.0 grams per piece)
	5 lb pkg	61.0	1/4 cup baked vegetable (about 4 pieces)	1.7	one piece = approx. 3/4 to 1-inch diameter by 1 to 1-1/4-inch length
<b>Potato Products, frozen</b> <i>Rounds<sup>9</sup></i> <i>Mini Size</i>	Pound	12.2	1/4 cup baked vegetable (about 8 pieces)	8.2	1 lb AP = 0.85 lb (about 3 cups) baked potato rounds (about 4.0 grams per piece)
<b>Potato Products, frozen</b> <i>Circles</i>	Pound	12.6	1/4 cup baked vegetable (about 5 circles)	8.0	1 lb AP = 0.75 lb (about 3-1/8 cups) cooked (about 1-1/4-inch diameter by 9/16-inch height)
<b>Potato Products, dehydrated</b> <i>Hashed browns</i>	Pound	24.1	1/4 cup reconstituted, cooked vegetable	4.2	1 lb dry = 6 cups reconstituted, cooked potato

### PRICKLY PEAR, (see CACTUS FRUIT)

### PRUNES (see PLUMS, dehydrated)

<sup>9</sup> Shaped, shredded potatoes available under brand names such as "Tater Tots" or "Tater Gems."

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
PUMPKIN					
Pumpkin, fresh Whole	Pound	4.70	1/4 cup cooked, mashed vegetable	21.3	1 lb AP = 0.70 lb ready-to-cook pumpkin
Pumpkin, canned	No. 10 can (106 oz)	51.5	1/4 cup heated vegetable	2.0	1 No. 300 can = about 15.1 oz (1-3/4 cups) ready-to-serve or -cook pumpkin
	No 2-1/2 can (29 oz)	14.1	1/4 cup heated vegetable	7.1	
	No. 300 can (15 oz)	7.04	1/4 cup heated vegetable	14.3	
	Pound	7.77	1/4 cup heated vegetable	12.9	
RADISHES					
Radishes, Fresh Without tops	Pound	12.8	1/4 cup whole vegetable (about 7 small radishes)	7.9	1 lb without tops = 0.94 lb ready-to-serve raw radishes
	Pound	15.3	1/4 cup raw, sliced vegetable	6.6	
RAISINS					
Raisins Regular moisture Seedless Includes USDA Commodity	Pound	12.6	1/4 cup fruit	8.0	1 lb AP = about 3-1/8 cups raisins
	Package (1.3 oz to 1.5 oz)	1.00	1/4 cup fruit	100.0	
	Pound	21.4	1/4 cup cooked fruit	4.7	
RASPBERRIES					
Raspberries, fresh Whole	Pint (11-1/2 oz)	8.70	1/4 cup raw, whole fruit	11.5	1 pt AP = 0.69 lb (about 2-1/8 cups) ready-to-serve raw berries
	Pound	12.1	1/4 cup raw, whole fruit	8.3	1 lb AP = 0.96 lb (about 3 cups) ready-to-serve raw berries
Raspberries, canned Red Whole	No. 10 can (103 oz)	48.0	1/4 cup fruit and juice	2.1	1 No. 10 can = 53.0 oz drained berries
	Pound	7.45	1/4 cup fruit and juice	13.5	1 lb AP = about 8.25 oz drained berries



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
RASPBERRIES (continued)					
Raspberries, frozen Fruit and Juice	Pound	7.20	1/4 cup thawed fruit and juice	13.9	
Raspberries, frozen Red Puree Includes USDA Commodity	Pound	7.69	1/4 cup thawed fruit puree	13.1	1 lb AP = about 1-7/8 cups thawed fruit puree
	5 lb 12 oz container	44.2	1/4 cup thawed fruit puree	2.3	5 lb 12 oz container = about 11 cups thawed fruit puree
Raspberries, frozen Red Whole Grade A Individually-quick-frozen	Pound	12.5	1/4 cup thawed, drained fruit	8.0	1 lb AP = 1 lb (about 3 cups) ready-to-serve thawed, drained berries
RHUBARB					
Rhubarb, fresh Without leaves	Pound	6.20	1/4 cup cooked fruit, sugar added	16.2	1 lb AP = 0.86 lb ready-to-cook rhubarb
Rhubarb, frozen	Pound	10.0	1/4 cup cooked fruit, sugar added	10.0	
RUTABAGAS					
Rutabagas, fresh Whole	Pound	8.30	1/4 cup pared, cubed, cooked vegetable	12.1	1 lb AP = 0.85 lb ready-to-cook rutabaga
	Pound	5.70	1/4 cup pared, cooked, drained, mashed vegetable	17.6	
SALSA <sup>10</sup>					
Salsa, canned Includes USDA Commodity (all vegetable ingredients plus a minor amount of spices)	No. 10 can (106 oz)	49.3	1/4 cup vegetable	2.1	1 No. 10 can = about 12-1/3 cups vegetable

<sup>10</sup> For salsa products that contain all vegetable ingredients plus a minor amount of spices or flavorings, one hundred percent of the product may be used to meet the volume vegetable/fruit requirement for meal pattern requirements. When products contain non-vegetable ingredients like gums, starches or stabilizers, water or vinegar, only that portion of the product that is a vegetable ingredient may be counted towards the volume requirement.



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### SALSA<sup>10</sup> (continued)

<b>Salsa, canned<sup>10</sup></b> <i>Chunky Commercial (all vegetable ingredients plus a minor amount of spices)</i>	1 gal (8 lb 10 oz)	63.9	1/4 cup vegetable	1.6	1 gallon container = 16 cups
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### SAUERKRAUT

<b>Sauerkraut, canned</b>	No. 10 can (99 oz)	36.5	1/4 cup heated, drained vegetable	2.8	1 No. 10 can = about 11-7/8 cups drained, unheated vegetable
	No. 2-1/2 can (27 oz)	15.0	1/4 cup heated, drained vegetable	6.7	1 No. 2-1/2 can = about 23.0 oz (4-1/2 cups) drained, unheated vegetable
	No. 300 can (14-1/2 oz)	4.93	1/4 cup heated, drained vegetable	20.3	

### SEAWEED

<b>Seaweed, dehydrated</b> <i>Wakame</i>	Pound	91.0	1/4 cup trimmed, rehydrated vegetable	1.1	1 lb dry = 4.3 lb (about 22-2/3 cups) rehydrated ready-to-serve or -cook seaweed
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### SOUPS, CANNED

<b>Soups, canned</b> <i>Condensed (1 part soup to 1 part water) Minestrone, Tomato, Tomato with other basic components such as rice, Vegetable (all vegetable), and Vegetable with other basic components such as meat or poultry</i>	No. 3 Can 50 oz (or about 46 fl oz)	11.5	1 cup reconstituted (about 1/4 cup vegetable)	8.7	Reconstitute 1 part soup with not more than 1 part water
	Pound	3.68	1 cup reconstituted (about 1/4 cup vegetable)	27.2	
	Picnic (about 10-3/4 oz)	2.40	1 cup reconstituted (about 1/4 cup vegetable)	41.7	

<sup>10</sup> For salsa products that contain all vegetable ingredients plus a minor amount of spices or flavorings, one hundred percent of the product may be used to meet the volume vegetable/fruit requirement for meal pattern requirements. When products contain non-vegetable ingredients like gums, starches or stabilizers, water or vinegar, only that portion of the product that is a vegetable ingredient may be counted towards the volume requirement.

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SOUPS, CANNED (continued)</b>					
<b>Soups, canned</b> <i>Ready-to-serve Minestrone, Tomato, Tomato with other basic components such as rice, Vegetable (all vegetable), and Vegetable with other basic components such as meat or poultry</i>	8 fl oz can	1.00	1 cup serving (about 1/4 cup vegetable)	100.0	
<b>Soups, canned</b> <i>Bean Soup Condensed (1 part soup to 1 part water)</i>	No. 3 Cyl (54 oz)	23.0	1/2 cup reconstituted (1/4 cup heated beans)	4.4	Reconstitute 1 part soup with not more than 1 part water
	Pound	6.80	1/2 cup reconstituted (1/4 cup heated beans)	14.8	
<b>Soups, canned</b> <i>Bean Soup Ready-to-serve</i>	8 oz can	1.00	1 cup serving (1/2 cup heated beans)	100.0	
<b>SPINACH</b>					
<b>Spinach, fresh</b> <i>Partly trimmed</i>	Pound	30.7	1/4 cup raw, chopped vegetable	3.3	1 lb AP = 0.88 lb ready-to- cook or -serve raw spinach
	Pound	20.4	1/4 cup vegetable with dressing	5.0	
	Pound	7.60	1/4 cup cooked, drained vegetable	13.2	
<b>Spinach, fresh</b> <i>Leaves (4-inch by 9-inch) Ready-to-use</i>	Pound	25.6	1/4 cup raw, chopped vegetable	4.0	1 lb AP = 1 lb (about 6-3/8 cups) ready-to-cook or -serve raw spinach
	Pound	12.6	1/4 cup wilted vegetable	8.0	1 lb AP = 1.03 lb (about 3-1/8 cups) wilted (lightly steamed for one minute) spinach

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SPINACH (continued)</b>					
<b>Spinach, canned</b>	No. 10 can (98 oz)	25.2	1/4 cup heated, drained vegetable	4.0	1 No. 10 can = about 55.0 oz drained spinach
	No. 2-1/2 can (27 oz)	6.90	1/4 cup heated, drained vegetable	14.5	1 No. 2-1/2 can = about 17.6 oz (2-1/4 cups) drained spinach
	No. 300 can (13-1/2 oz)	3.91	1/4 cup heated, drained vegetable	25.6	1 No. 300 can = about 1 cup drained, unheated spinach
	Pound	4.11	1/4 cup heated, drained vegetable	24.4	
<b>Spinach, frozen</b> <i>Chopped</i>	Pound	5.60	1/4 cup cooked, drained vegetable	17.9	
<b>Spinach, frozen</b> <i>Leaf Whole</i>	Pound	6.50	1/4 cup cooked, drained vegetable	15.4	
<b>SQUASH, SUMMER</b>					
<b>Squash, Summer, fresh</b> <i>Yellow</i>	Pound	7.30	1/4 cup cubed, cooked, drained vegetable	13.7	1 lb AP = 0.95 lb ready-to-cook squash
	Pound	6.30	1/4 cup cooked, drained mashed vegetable	15.9	
	Pound	15.5	1/4 cup raw, sliced vegetable	6.5	1 lb AP = 0.98 lb (about 3-7/8 cups) ready-to-serve or -cook squash
	Pound	8.42	1/4 cup sliced, cooked, drained vegetable	11.9	1 lb AP = 0.83 lb (about 2 cups) cooked, sliced squash



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SQUASH, SUMMER (continued)</b>					
<b>Squash, Summer, fresh</b> <i>Zucchini Whole</i>	Pound	11.9	1/4 cup raw vegetable sticks (about 3 sticks, 1/2-inch by 3-inch sticks)	8.5	1 lb AP = 0.95 lb (about 2-7/8 cups) ready-to-serve or -cook raw (1/2-inch by 3-inch) squash sticks
	Pound	12.7	1/4 cup raw, cubed vegetable	7.9	1 lb AP = 0.95 lb (about 3-1/8 cups) ready-to-cook or -serve raw 3/4-inch cubed zucchini
	Pound	7.60	1/4 cup cubed, cooked, drained vegetable	13.2	1 lb AP = 0.86 lb cooked, 3/4-inch zucchini cubes
	Pound	13.1	1/4 cup raw, sliced vegetable	7.7	1 lb AP = 0.96 lb (about 3-1/4 cups) ready-to-cook or -serve raw, 1/4-inch zucchini slices
	Pound	10.2	1/4 cup sliced, cooked, drained vegetable	9.9	
<b>Squash, Summer, canned</b> <i>Sliced</i>	No. 10 can (105 oz)	26.5	1/4 cup heated, drained vegetable	3.8	1 No. 10 can = about 61.0 oz (8-3/8 cups) drained, unheated squash
	Pound	4.03	1/4 cup heated, drained vegetable	24.9	1 lb AP = about 9.2 oz (1-1/2 cups) drained squash
<b>Squash, Summer, frozen</b> <i>Yellow Sliced</i>	Pound	7.90	1/4 cup cooked, drained vegetable	12.7	
<b>Squash, Summer, frozen</b> <i>Zucchini Sliced</i>	Pound	7.00	1/4 cup cooked, drained vegetable	14.3	
<b>SQUASH, WINTER</b>					
<b>Squash, Winter, fresh</b> <i>Acorn Whole</i>	1 squash (8 oz)	2.00	1/2 small squash baked in skin (about 1/4 cup vegetable)	50.0	1 lb AP = 0.87 lb ready-to-cook squash in skin
	Pound	4.70	1/4 cup cooked, drained, pared, mashed vegetable	21.3	1 lb AP = 0.70 lb ready-to-cook pared squash

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SQUASH, WINTER (continued)</b>					
<b>Squash, Winter, fresh</b> <i>Butternut Whole</i>	Pound	7.50	1/4 cup cooked, drained, pared, cubed vegetable	13.4	1 lb AP = 0.84 lb ready-to-cook pared squash
	Pound	5.40	1/4 cup cooked, pared, drained, mashed vegetable	18.6	
<b>Squash, Winter, fresh</b> <i>Hubbard Whole</i>	Pound	4.40	1/4 cup cooked, drained, pared, cubed vegetable	22.8	1 lb AP = 0.64 lb ready-to-cook pared squash
	Pound	4.30	1/4 cup cooked, drained, pared, mashed vegetable	23.3	
<b>Squash, Winter, frozen</b> <i>Mashed All varieties</i>	Pound	7.00	1/4 cup cooked vegetable	14.3	
<b>STARFRUIT (CARAMBOLA)</b>					
<b>Star Fruit (Carambola), fresh</b> <i>Whole</i>	Pound	13.5	1/4 cup sliced fruit	7.5	1 lb AP = 0.97 lb (about 3-7/8 cups) ready-to-serve 1/4-inch sliced (about 46 slices) or about 2-7/8 cups chopped star fruit
	Pound	9.50	1/4 cup chopped fruit	10.3	
<b>STRAWBERRIES</b>					
<b>Strawberries, fresh</b> <i>Whole</i>	Pint (11-1/2 oz)	7.90	1/4 cup raw, whole fruit	12.7	1 pt AP = about 0.66 lb ready-to-serve raw berries
	Pound	10.5	1/4 cup raw, whole fruit	9.6	1 lb AP = 0.88 lb ready-to-serve raw berries
<b>Strawberries, frozen</b> <i>Sliced Unsweetened Includes USDA Commodity</i>	Pound	7.28	1/4 cup thawed fruit and juice	13.8	1 lb AP = 1 lb (about 1-3/4 cups) ready-to-serve thawed berries and juice
<b>Strawberries, frozen</b> <i>Sliced Sweetened Includes USDA Commodity</i>	Pound	7.10	1/4 thawed fruit and juice	14.1	

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>STRAWBERRIES (continued)</b>					
<b>Strawberries, frozen</b> <i>Whole, Grade A Unsweetened Individually-quick-frozen Includes USDA Commodity</i>	Pound	11.9	1/4 cup thawed fruit	8.5	1 lb AP = 1 lb (about 2-7/8 cups) ready-to-serve, thawed berries
<b>Strawberries, dehydrated</b>	Pound	10.9	1/4 cup dehydrated fruit	9.2	1 lb AP (dried) = 1 lb (about 2-2/3 cups) ready-to-serve dehydrated berries
<b>SUCCOTASH</b>					
<b>Succotash, canned</b> <i>Corn and Green Beans</i>	No. 10 can (103 oz)	34.1	1/4 cup heated, drained vegetable	3.0	1 No. 10 can = about 65.4 oz (8-1/2 cups) heated, drained succotash
	No. 10 can (103 oz)	37.8	1/4 cup drained vegetable (unheated for salads)	2.7	1 No. 10 can = about 62.0 oz (9-3/8 cups) drained, unheated succotash
	Pound	5.29	1/4 cup heated, drained vegetable	19.0	
	Pound	5.87	1/4 cup drained vegetable (unheated for salads)	17.1	
<b>Succotash, canned</b> <i>Corn and Lima Beans</i>	No. 10 can (105 oz)	36.7	1/4 cup heated, drained vegetable	2.8	1 No. 10 can = about 75.0 oz (9-1/8 cups) heated, drained succotash
	No. 10 can (105 oz)	40.9	1/4 cup drained vegetable (unheated for salads)	2.5	1 No. 10 can = about 71.0 oz (about 10-1/8 cups) drained, unheated succotash
	Pound	5.59	1/4 cup heated, drained vegetable	17.9	
	Pound	6.24	1/4 cup drained vegetable (unheated for salads)	16.1	
<b>Succotash, frozen</b> <i>Corn and Green Beans</i>	Pound	8.76	1/4 cup cooked, drained vegetable	11.5	1 lb AP = 0.95 lb (about 2-1/8 cups) cooked, drained succotash or 2-7/8 cups thawed
	Pound	11.6	1/4 cup thawed vegetable (unheated for salads)	8.7	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SUCCOTASH (continued)</b>					
<b>Succotash, frozen</b> <i>Corn and Lima Beans</i>	Pound	9.25	1/4 cup cooked, drained vegetable	10.9	1 lb AP = 0.95 lb (about 2-1/4 cups) cooked, drained succotash
	Pound	11.6	1/4 cup thawed vegetable (unheated for salads)	8.7	1 lb AP = 1 lb (about 2-7/8 cups) ready-to-serve thawed, unheated succotash
<b>SWEET POTATOES</b>					
<b>Sweet Potatoes, fresh</b> <i>Whole</i>	Pound	6.60	1/4 cup baked vegetable	15.2	1 lb AP = 0.61 lb baked sweet potato without skin
	Pound	5.50	1/4 cup cooked, mashed vegetable	18.2	1 lb AP = 0.80 lb peeled ready-to-cook sweet potato
	Pound	9.10	1/4 cup cooked, sliced vegetable	11.0	
<b>Sweet Potatoes, canned</b> <i>Cut</i> <i>Packed in light syrup</i> <i>Includes USDA Commodity</i>	No. 10 can (108 oz)	33.8	1/4 cup heated, drained vegetable	3.0	1 No. 10 can = about 60.9 oz (8-3/8 cups) heated, drained sweet potato
	No. 2-1/2 can (29 oz)	12.2	1/4 cup heated, drained vegetable	8.2	1 No. 2-1/2 can = about 18.0 oz (3-1/8 cups) heated, drained sweet potato
	No. 300 can (15-3/4 oz)	5.16	1/4 cup heated, drained vegetable	19.4	1 No. 300 can = about 9.0 oz (1-1/4 cups) heated, drained sweet potato
<b>Sweet Potatoes, canned</b> <i>Mashed</i> <i>Includes USDA Commodity</i>	No. 10 can (109 oz)	49.1	1/4 cup heated vegetable	2.1	1 No. 10 can = about 12-1/4 cups heated, mashed sweet potato

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SWEET POTATOES (continued)</b>					
<b>Sweet Potatoes, canned</b> <i>Whole</i> <i>Includes USDA Commodity</i>	No. 10 can (112 oz)	39.1	1/4 cup heated, drained vegetable	2.6	1 No. 10 can = about 78.6 oz (9-3/4 cups) heated, drained sweet potato
	No. 2-1/2 can (29 oz)	12.3	1/4 cup heated, drained vegetable	8.2	1 No. 2-1/2 can = about 18.0 oz (3-1/4 cups) heated, drained sweet potato
	No. 300 can (15-3/4 oz)	5.16	1/4 cup heated, drained vegetable	19.4	1 No. 300 can = about 9.6 oz (1-1/4 cups) heated, drained sweet potato
<b>Sweet Potatoes, frozen</b> <i>Mashed</i> <i>Includes USDA Commodity</i>	Pound	7.55	1/4 cup cooked vegetable	13.3	1 lb AP = 0.99 lb (about 1-3/4 cups) cooked sweet potato
<b>Sweet Potatoes, frozen</b> <i>Center cuts</i> <i>Approx. 7/8 to 1-3/8-inch thick by 1-1/4 to 1-3/4 inch diameter</i>	Pound	9.70	1/4 cup cooked vegetable	10.4	1 lb AP = 0.98 lb (about 2-3/8 cups) cooked sweet potato
<b>Sweet Potatoes, frozen</b> <i>Center cuts</i> <i>Approx. 1-inch thick by 1-3/4 to 2-inch diameter</i>	Pound	9.25	1/4 cup cooked vegetable	10.9	1 lb AP = 0.93 lb (about 2-1/4 cups) cooked sweet potato
<b>Sweet Potatoes, frozen</b> <i>Random cut chunks</i> <i>Includes USDA Commodity</i>	Pound	9.24	1/4 cup cooked vegetable	10.9	1 lb AP = 0.95 lb (about 2-1/4 cups) cooked sweet potato
<b>Sweet Potatoes, frozen</b> <i>Packed in syrup</i>	Pound	7.60	1/4 cup cooked, drained vegetable	13.2	
<b>Sweet Potatoes, dehydrated</b> <i>Flakes</i> <i>Low moisture</i>	Pound	18.5	1/4 cup reconstituted vegetable	5.5	1 lb dry = about 3-3/4 cups dehydrated sweet potato flakes



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SWISS CHARD</b>					
<b>Swiss Chard, fresh</b> <i>Trimmed</i>	Pound	21.1	1/4 cup raw, chopped vegetable	4.8	1 lb AP = 0.96 lb (about 5-1/4 cups) ready-to-serve raw, chopped Swiss chard
<b>Swiss Chard, fresh</b> <i>Untrimmed</i>	Pound	6.30	1/4 cup cooked, drained vegetable	15.9	1 lb AP = about 0.92 lb ready-to-cook trimmed Swiss chard
<b>TANGELOS</b>					
<b>Tangelos, fresh</b> <i>Whole</i>	Pound	6.67	1/4 cup peeled fruit sections	15.0	1 lb AP = 0.74 lb (about 1-2/3 cups) ready-to-serve peeled, sectioned tangelo
<b>TANGERINES</b>					
<b>Tangerines, fresh</b> 120 count <i>Whole</i>	Pound	4.00	1 whole, raw tangerine (about 3/8 cup fruit)	25.0	1 lb AP = 0.80 lb (about 1-7/8 cups) ready-to-serve peeled, sectioned tangerine
	Pound	7.78	1/4 cup peeled fruit sections	12.9	
<b>Tangerines, canned</b> <i>Mandarin Oranges</i>	Pound	7.30	1/4 cup fruit and juice	13.7	1 lb AP = about 0.61 lb (about 1-1/2 cups) drained tangerine
<b>TANNIER (see YAUTIA)</b>					
<b>TARO (see MALANGA)</b>					
<b>TOMATILLOS</b>					
<b>Tomatillos, fresh</b> <i>Whole with stem</i>	Pound	11.9	1/4 cup raw, diced vegetable	8.5	1 lb AP = 0.98 lb (2-7/8 cups) ready-to-serve stemmed, 1/2-inch, diced tomatillo
	Pound	6.38	1/4 cup cooked, diced vegetable	15.7	1 lb AP = 0.82 lb (about 1-1/2 cups) diced, cooked tomatillo
<b>TOMATOES</b>					
<b>Tomatoes, fresh</b> <i>Cherry</i> <i>Whole with stem</i>	Pound	12.1	1/4 cup whole vegetable (about 3 whole cherry tomatoes)	8.3	1 lb AP = 0.99 lb (about 3 cups) stemmed, whole cherry tomatoes
	Pound	10.6	1/4 cup vegetable halves (about 5 cherry tomato halves)	9.5	1 lb AP = 0.99 lb (about 2-2/3 cups) stemmed, halved cherry tomatoes



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>TOMATOES (continued)</b>					
<b>Tomatoes, fresh</b> <i>Whole</i> <i>All sizes</i>	Pound	7.60	1/4 cup diced tomato	13.2	1 lb AP = 0.87 lb ready-to-serve raw, diced tomato
	Pound	10.4	1/4 cup vegetable wedges	9.7	1 lb AP = 0.98 lb (about 2-1/2 cups) ready-to-serve 1/2-inch tomato wedges
<b>Tomatoes, fresh</b> <i>Small or Medium</i> <i>approx 2-1/8-inch to 2-1/4-inch diameter</i> <i>Whole</i>	Pound	8.53	1/4 cup sliced vegetable (about 5 slices, 1/8-inch thick)	11.8	1 lb AP = 0.87 lb (about 2-1/8 cups) 1/8-inch, sliced tomato
<b>Tomatoes, fresh</b> <i>Large or Extra large</i> <i>Approx. 2-1/2-inch to 2-3/4-inch diameter</i> <i>Whole</i>	Pound	8.70	1/4 cup sliced vegetable (about 4 slices, 1/8-inch thick)	11.5	1 lb AP = 0.86 lb sliced tomato (1/8-inch, thick slices)
<b>Tomatoes, fresh</b> <i>Diced</i> <i>Ready-to-use</i>	Pound	8.74	1/4 cup raw vegetable	11.5	1 lb AP = 1 lb (about 2-1/8 cups) ready-to-serve tomato
	Pound	6.67	1/4 cup cooked vegetable	15.0	1 lb AP = 0.85 lb (about 1-2/3 cups) cooked tomato
<b>Tomatoes, canned</b> <i>Whole or Stewed</i> <i>Includes USDA Commodity</i>	No. 10 can (102 oz)	45.5	1/4 cup heated vegetable and juice	2.2	1 No. 10 can = about 66.0 oz drained tomato
	No. 10 can (102 oz)	48.8	1/4 cup vegetable and juice	2.1	
	No. 2-1/2 can (28 oz)	12.5	1/4 cup heated vegetable and juice	8.0	1 No. 2-1/2 can = about 18.5 oz drained tomato
	No. 2-1/2 can (28 oz)	13.4	1/4 cup vegetable and juice	7.5	
	No. 300 can (14-1/2 oz)	6.14	1/4 cup heated vegetable and juice	16.3	
	No. 300 can (14-1/2 oz)	6.59	1/4 cup vegetable and juice	15.2	
	Pound	7.13	1/4 cup heated vegetable and juice	14.1	

## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>TOMATOES (continued)</b>					
<b>Tomatoes, canned</b> <i>Crushed</i>	No. 10 can (102 oz)	46.6	1/4 cup heated vegetable and juice	2.2	1 No. 10 can = about 12 cups tomato and juice
	No. 2-1/2 can (28 oz)	12.7	1/4 cup heated vegetable and juice	7.9	1 No. 2-1/2 can = about 18.5 oz drained tomato
	Pound	7.30	1/4 cup heated vegetable and juice	13.7	
<b>Tomatoes, canned</b> <i>Diced</i> <i>Includes USDA Commodity</i>	No. 10 can (102 oz)	49.2	1/4 cup heated vegetable and juice	2.1	1 No. 10 can = about 12-1/4 cups heated, tomato and juice
	No. 2-1/2 can (28 oz)	13.5	1/4 cup heated vegetable and juice	7.5	1 No. 2-1/2 can = about 18.5 oz drained, unheated tomato
	No. 300 can (14-1/2 oz)	6.99	1/4 cup heated vegetable and juice	14.4	
	Pound	7.71	1/4 cup heated vegetable and juice	13.0	
<b>TOMATO PRODUCTS</b>					
Tomato Products, Canned <b>Tomato Paste</b> <i>24%-28% Natural Tomato Soluble Solids (NTSS)</i> <i>Includes USDA Commodity</i>	No. 10 can (111 oz)	192.0	1 tablespoon paste (1/4 cup vegetable)	0.53	1 No. 10 can = about 12 cups tomato paste
	No. 2-1/2 can (30 oz)	52.0	1 tablespoon paste (1/4 cup vegetable)	2.0	1 No. 2-1/2 can = about 3-1/4 cups tomato paste
	Pound	27.6	1 tablespoon paste (1/4 cup vegetable)	3.7	1 No. 10 can paste plus 3 cans water = 48 cups single strength tomato juice
	Picnic (12 oz)	20.7	1 tablespoon paste (1/4 cup vegetable)	4.9	12 oz can = about 1-1/4 cups paste
Tomato Products, canned <b>Tomato Puree</b> <i>Not less than 8% but less than 24 % Natural Tomato Soluble Solids (NTSS)</i>	No. 10 can (106 oz)	96.0	2 tablespoons puree (1/4 cup vegetable)	1.1	1 No. 10 can = 12 cups puree, 1 No. 10 can tomato puree plus one can water = 24 cups single strength tomato juice
	No. 2-1/2 can (29 oz)	26.2	2 tablespoons puree (1/4 cup vegetable)	3.9	
	Pound	14.4	2 tablespoons puree (1/4 cup vegetable)	7.0	



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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### TOMATO PRODUCTS (continued)

Tomato Products, canned <b>Tomato Sauce</b> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	50.7	1/4 cup vegetable	2.0	
	No. 300 can (15 oz)	6.85	1/4 cup vegetable	14.6	
	Pound	7.65	1/4 cup vegetable	13.1	
Tomato Products, canned <b>Spaghetti Sauce, Meatless</b> <i>USDA Commodity</i>	No. 10 can (106 oz)	47.9	1/4 cup heated vegetable	2.1	1 No. 10 can = about 12 cups heated spaghetti sauce

### TURNIPS

<b>Turnips, fresh Whole</b>	Pound	10.8	1/4 cup raw, pared vegetable sticks (about 7 sticks, 1/2-inch by 2-inch sticks)	9.3	1 lb AP = 0.83 lb (about 2-2/3 cups) ready-to-serve raw, pared turnip sticks
<b>Turnips, fresh Without tops</b>	Pound	11.2	1/4 cup raw, pared, cubed or diced vegetable	9.0	1 lb AP = 0.79 lb ready-to-cook or -serve raw pared turnip
	Pound	8.70	1/4 cup pared, cubed, cooked, drained vegetable	11.5	1 lb AP = 0.78 lb (about 2-1/8 cups) pared, cubed, cooked turnip
	Pound	5.60	1/4 cup cooked, drained, pared, mashed vegetable	17.9	

### TURNIP GREENS

<b>Turnip Greens, fresh Untrimmed</b>	Pound	6.50	1/4 cup cooked, drained vegetable	15.4	1 lb AP = 0.70 lb ready-to-cook turnip greens
<b>Turnip Greens, canned</b>	No. 10 can (98 oz)	27.6	1/4 cup heated, drained vegetable	3.7	1 No. 10 can = 58.0 oz drained turnip greens
	No. 2-1/2 can (27 oz)	7.60	1/4 cup heated, drained vegetable	13.2	
	No. 300 can (14-1/2 oz)	3.72	1/4 cup heated, drained vegetable	26.9	
	Pound	4.50	1/4 cup heated, drained vegetable	22.3	



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<b>TURNIP GREENS (continued)</b>					
<b>Turnip Greens, frozen</b> <i>Chopped or Whole Leaf</i>	Pound	9.60	1/4 cup cooked, drained vegetable	10.5	
<b>TURTLE BEANS (see BLACK BEANS)</b>					
<b>UGLI FRUIT</b>					
<b>Ugli Fruit, fresh</b> <i>Whole</i>	Pound	6.33	1/4 cup peeled, chopped fruit	15.8	1 lb AP = 0.67 lb (about 1-1/2 cups) ready-to-serve raw, peeled, chopped ugli fruit. One 32-count ugli fruit = about 14.6 oz
<b>VEGETABLES, MIXED</b>					
<b>Vegetables, Mixed, canned</b> <i>Seven vegetables: Carrots, Celery, Corn, Green Beans, Green Peas, Lima Beans and Potatoes</i> <i>Includes USDA Commodity</i>	No. 10 can (106 oz)	36.1	1/4 cup heated, drained vegetable	2.8	1 No. 10 can = about 66.5 oz (9-1/4 cups) drained vegetable
	No. 2-1/2 can (29 oz)	11.5	1/4 cup heated, drained vegetable	8.7	1 No. 2-1/2 can = about 19.4 oz (3-3/8 cups) drained vegetable
	No. 300 can (15 oz)	4.64	1/4 cup heated, drained vegetable	21.6	1 No. 300 can = about 8.6 oz (1-1/2 cup) drained, unheated vegetable
<b>Vegetables, Mixed, frozen</b> <i>Seven vegetables: Carrots, Celery, Corn, Green Beans, Green Peas, Lima Beans, and Potatoes</i>	Pound	8.10	1/4 cup cooked, drained vegetable	12.4	
<b>Vegetables, Mixed, frozen</b> <i>Broccoli and Cauliflower blend</i>	Pound	11.9	1/4 cup thawed vegetable (unheated for salads)	8.5	1 lb AP = 0.98 lb (about 2-7/8 cups) ready-to-serve thawed, mixed vegetables for salad bar
	Pound	10.7	1/4 cup cooked, drained vegetable	9.4	1 lb AP = 0.95 lb (about 2-2/3 cups) cooked, drained, mixed vegetables

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<b>VEGETABLES, MIXED (continued)</b>					
<b>Vegetables, Mixed, frozen</b> <i>Broccoli, Cauliflower, and Carrot Blend</i>	Pound	11.9	1/4 cup thawed vegetable (unheated for salads)	8.5	1 lb AP = 0.98 lb (about 2-7/8 cups) ready-to-serve thawed, mixed vegetables for salad bar
	Pound	10.6	1/4 cup cooked, drained vegetable	9.5	1 lb AP = 0.94 lb (about 2-2/3 cups) cooked, drained mixed vegetables
<b>Vegetables, Mixed, frozen</b> <i>Carrot, Corn, and Green Bean blend</i>	Pound	9.84	1/4 cup thawed vegetable (unheated for salads)	10.2	1 lb AP = 0.99 lb (about 2-3/8 cups) ready-to-serve thawed, mixed vegetables for salad bar
	Pound	9.20	1/4 cup cooked, drained vegetable	10.9	1 lb AP = 0.96 lb (about 2-1/4 cups) cooked, drained, mixed vegetables
<b>Vegetables, Mixed, frozen</b> <i>Peppers and Onions</i>	Pound	7.71	1/4 cup cooked, drained vegetable	13.0	1 lb AP = 0.86 lb (about 1-7/8 cups) cooked, drained, mixed vegetables
<b>WATER CHESNUTS</b>					
<b>Water Chestnuts, canned</b>	Pound	6.70	1/4 cup drained fruit	15.0	
<b>WATERCRESS</b>					
<b>Watercress, fresh</b>	Pound	50.5	1/4 cup raw vegetable sprigs or pieces	2.0	1 lb AP = 0.92 lb ready-to-serve raw watercress
<b>WATERMELON<sup>11</sup></b>					
<b>Watermelon, fresh<sup>11</sup></b> <i>Whole</i>	1 Melon (about 27 lb)	168.9	1/4 cup fruit	0.60	
	Pound	6.10	1/4 cup diced fruit without rind	16.4	1 lb AP = 0.61 lb (about 1-1/2 cups) ready-to-serve raw, 1/2-inch diced watermelon without rind
<b>YAM BEAN (see JICAMA)</b>					

<sup>11</sup> In response to Salmonella outbreaks associated with raw melon, the Food and Drug Administration has provided guidance for safe handling practices for melons that include washing the outer surface of the melon thoroughly with cool tap water to remove surface dirt.



## Section 2—Vegetables/Fruits

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>YAUTIA (TANNIER)</b>					
<b>Yautia (Tannier), fresh</b> <i>Whole</i>	Pound	8.84	1/4 cup peeled, diced, raw vegetable	11.4	1 lb AP = 0.74 lb (about 2-1/8 cups) ready-to-serve, peeled, 1-inch, diced yautia (tannier)
	Pound	8.84	1/4 cup diced, cooked vegetable	11.4	1 lb AP = 0.80 lb peeled, diced, cooked yautia (tannier) (absorbs water during cooking)
<b>YUCCA (CASSAVA)</b>					
<b>Yucca, (Cassava), fresh</b> <i>Whole</i>	Pound	8.01	1/4 cup peeled, cooked chunks	12.5	1 lb AP = 0.76 lb peeled, cooked, 4 to 5-inch yucca chunks





# Grains/Breads



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# Grains/Breads

## Grains/Breads Component for the Child Nutrition Programs

All reimbursable meals offered under the food-based menu planning approach in the National School Lunch Program (NSLP), Child and Adult Care Food Program (CACFP), and Summer Food Service Program (SFSP) must include grains/breads food product(s). A reimbursable school breakfast in the School Breakfast Program (SBP) and a reimbursable supplement in the CACFP or an Afterschool Snack may contain a grains/breads component.

FNS meal pattern regulations establish the *minimum* serving size(s) of grains/breads required for breakfasts, lunches, suppers, and supplements (snacks). Meal pattern charts for each of the Child Nutrition Programs are on pages I-7 through I-27.

## Definitions

- **Bran** is the seed husk or outer coating of cereal grains such as wheat, rye, and oats. The bran can be mechanically removed from the flour or meal by sifting or bolting.
- **Breakfast cereal** is any cereal served ready to eat (cold dry) or cooked as a menu item for breakfast and other meals, as appropriate.
- **Creditable grains** represent all of the grains and grain components that count towards a creditable grains/breads component; they are enriched or whole-grain meal and/or flour, bran, and/or germ.
- **Enriched** means that the product conforms to the Food and Drug Administration's standard of identity for levels of iron, thiamin, riboflavin, niacin, and folic acid. The terms "enriched," "fortified," or similar terms indicate the addition of one or more vitamins or minerals or protein to a food, unless an applicable Federal regulation requires the use of specific words or statements.
- **Flour** is the product derived by finely grinding and bolting (sifting) wheat or other grains. Flour may be made from all grains (wheat, rye, corn, etc.).
- **Grains/Breads servings** designates the contribution a given serving size makes toward the grains/breads component. The term "grains/breads serving" appears in Column 4 of the yield table (except for Group H foods).
- **Germ** is the vitamin-rich embryo of the grain kernel. The germ can be separated before milling for use as a cereal or food supplement.
- **Primary grain ingredient** is the first listed grain ingredient in the ingredient statement.

*Whole-grain flour or meal* is the product derived by grinding the entire grain. If a flour or meal does not contain the bran and the germ, it is not whole grain.

### Examples of Foods That Qualify as Grains/Breads

Foods that qualify as grains/breads in the Child Nutrition Programs are enriched or whole-grain, or are made from enriched or whole-grain meal and/or flour. Bran and germ are credited the same as enriched or whole-grain meal or flour. Such foods include, but are not limited to:

- *Breads* that are enriched or whole-grain or made from enriched or whole-grain meal and/or flour, bran, and/or germ.
- *Biscuits, bagels, rolls, tortillas, muffins, or crackers* made with enriched or whole-grain meal and/or flour, bran, and/or germ.
- *Cereal grains (cooked) such as rice, bulgur, oatmeal, corn grits, wheat, or couscous* that are enriched, whole-grain, or fortified.
- *Ready-to-eat breakfast cereals* that are enriched, whole-grain, or fortified.
- *Cereals or bread products that are used as an ingredient in another menu item such as crispy rice treats, oatmeal cookies, or breading on fish or poultry* when the cereal or bread ingredients are enriched or whole-grain, or when the cereal is fortified.
- *Macaroni or noodle products (cooked)* made with enriched or whole-grain flour. Program regulations for the NSLP and the SFSP allow enriched macaroni products that have been fortified with protein to be counted to meet either a grains/breads or meat/meat alternate requirement, but not as both components in the same meal.
- *Sweet food products such as toaster pastries, coffee cake, doughnuts, sweet rolls, cookies, cakes, or formulated grain-fruit products (authorized under Appendix A of 7 CFR Part 220)* when made with whole grain, enriched or whole-grain meal and/or flour, bran, and/or germ and served, as permitted under Exhibit A. When sweet food products are permitted, no more than one sweet grains/breads serving per day may be a dessert, and sweet snack food products should not be served as part of a supplement (snack) more than twice a week.
- *Pie crust* when made with enriched or whole-grain meal and/or flour and served, as allowed under Exhibit A.
- *Non-sweet snack food products such as hard pretzels, hard bread sticks, and tortilla chips* made from enriched or whole-grain meal and/or flour.



## I. Criteria for Determining Acceptable Grains/Breads Under the Food-Based Menu Planning Approaches

Use the following criteria as a basis for crediting items to meet the grains/breads requirement under the food-based menu planning approaches.

- A. All grains/breads items must be enriched or whole-grain, made from enriched or whole-grain meal and/or flour. If using a cereal it must be whole-grain, enriched, or fortified. Bran and germ are credited the same as enriched or whole-grain meal or flour.
- B. The label must indicate that 1) the food product is enriched or whole-grain, made from enriched or whole-grain meal and/or flour, bran, and/or germ, or 2) the cereal is whole-grain, enriched, or fortified. If the food product is enriched, it must meet the Food and Drug Administration's standards of identity (21 CFR Part 136, Part 137, Part 139) for enriched bread, macaroni and noodle products, rice, or cornmeal.
- C. The food product must be provided in quantities specified in the appropriate program regulations. One-quarter ( $\frac{1}{4}$ ) of a serving is the smallest amount allowable to be credited toward the minimum quantities of grains/breads specified in program regulations.

## II. Determining Grains/Breads Creditability

To review a grains/breads food product to determine if it is creditable, Child Nutrition Programs need to verify that the food product is enriched or whole-grain, *or* that it is made from enriched or whole-grain meal and/or flour, bran, and/or germ, *or* if it is a cereal, that it is whole-grain, enriched, or fortified.

The steps listed here will help determine if a food product is creditable towards the grains/breads component of a reimbursable meal. If at any point during the steps a "yes" answer is obtained, proceed to Section III, Criteria for Determining Serving Sizes. If you answer "no" to all of the steps from A to H2, the food product is not creditable towards the grains/breads component of a reimbursable meal.

The following steps are summarized in the flow chart on page 3-7.

- A. Is the *food product* labeled as "whole-grain"?

If a food product is made from whole grain, the product name on the label will usually include the word "whole" or "entire".

*Some examples include: "whole wheat bread," "entire wheat bread," "whole wheat rolls," "entire wheat rolls," "whole wheat buns," "entire wheat buns," and "whole wheat macaroni products".*

or





**B.** Is the *food product* labeled as “enriched”?

If a food product is enriched, the product name on the label will include the word “enriched.”

*Some examples include: “enriched bread,” “enriched rolls,” “enriched buns,” “enriched rice,” “enriched macaroni products,” “enriched egg noodle products,” “enriched grits,” and “enriched cereal”.*

**or**

**C.** Is the *food product* a fortified cereal? (Fortification only applies to cereals, so if the food product is not a cereal, continue on to step D).

If a cereal is fortified, the word “fortified” will be included on the product label.

**or**

**D.** In the *ingredient statement*, is the primary grain ingredient labeled “enriched”?

Ingredients with standards of enrichment will include the word “enriched” in the ingredient name. The usual method of declaration for enriched grain ingredients is to list the established or usual name of the ingredient along with the word “enriched” followed by a parenthetical listing of the grain and the enrichment ingredients.

*Some examples include: “enriched wheat flour (wheat flour, niacin, iron, thiamine mononitrate, riboflavin, folic acid);” “enriched cornmeal (...);” “enriched self-rising flour (...);” and “enriched farina (...).”*

*Note: While enrichment of cornmeal (a whole-grain meal) is not required, many programs choose to purchase enriched cornmeal for the added nutritional value.*

**or**

**E.** In the *ingredient statement*, is the primary grain ingredient designated as a whole grain?

A whole grain ingredient will usually include the word “whole,” “entire,” “cracked,” “crushed,” or “groats.”

*Some examples include: “whole wheat flour,” “entire wheat flour,” “cracked wheat,” “crushed wheat,” “buckwheat groats,” “graham flour” (which is another name for whole wheat flour), “brown rice” (which indicates that the rice retains the bran layer), “old-fashioned oatmeal” (also called “rolled oats”), “quick-cooking oats,” and “cornmeal”.*

**or**

- F. In the *ingredient statement*, does the primary grain ingredient appear to be whole grain but it is **not** designated as whole grain?

When the ingredient statement does not clearly indicate that the primary grain ingredient is whole grain, the Child Nutrition Program operator *must obtain documentation* from the manufacturer stating that the grain is whole grain prior to using the food product toward meeting meal pattern requirements.

*Some examples include: "amaranth," "corn," "millet," and "quinoa".*

**or**

- G. In the *ingredient statement*, is the primary grain ingredient bran and/or germ?

Bran and germ are two components of grains. While not whole grains, they are nutritious portions of the grain and are, therefore, credited the same as whole-grain or enriched ingredients. Bran or germ will be listed along with the name of the grain.

*Some examples include: "oat bran" and "wheat germ".*

**or**

- H1. Although the primary grain ingredient is not creditable, does the *ingredient statement* list other grains that **are** creditable?

If a food product contains grain(s) that are creditable, but *a non-creditable grain ingredient is the primary grain ingredient*, then *documentation will be needed to determine the grams of creditable grain(s) per serving* of that food product in order to be used towards meeting meal requirements.

- H2. If the primary grain ingredient is not creditable, but the ingredient statement does include creditable grain(s), the Child Nutrition program operator *must obtain documentation* from the manufacturer. The documentation must state 1) the gram weight or percentage of all *creditable grains* in one defined portion, and 2) that the grain(s) counted towards the percentage given are either enriched and/or whole-grain and/or bran, and/or germ. If a grain is not creditable, it should not be included in the weight or percent given in the documentation.

*Some examples of non-creditable grain ingredients include: "bromated flour," "corn grits," "degerminated cornmeal," "degerminated (grain)," "durum flour," "farina," "flour," "plain flour," "self-rising flour," "semolina flour," "white flour," and "wheat flour".*



*If you have answered "no" to all the above steps, the food product is **not creditable** towards the grains/breads component of a reimbursable meal. These items may be served as an "other foods" item and used to help round out the meal as well as contribute calories and nutrients.*

## Instructions for Using the Grains/Breads Flow Chart

Child Nutrition Programs need to verify that the food product is enriched or whole-grain, *or* that it is made from enriched or whole-grain meal and/or flour, bran, and/or germ, *or* if it is a cereal, that it is whole-grain, enriched, or fortified. By using the following flow chart along with steps A-H2 above, you can evaluate a grains/breads food product to determine if it is creditable towards the grains/breads component of a reimbursable meal.

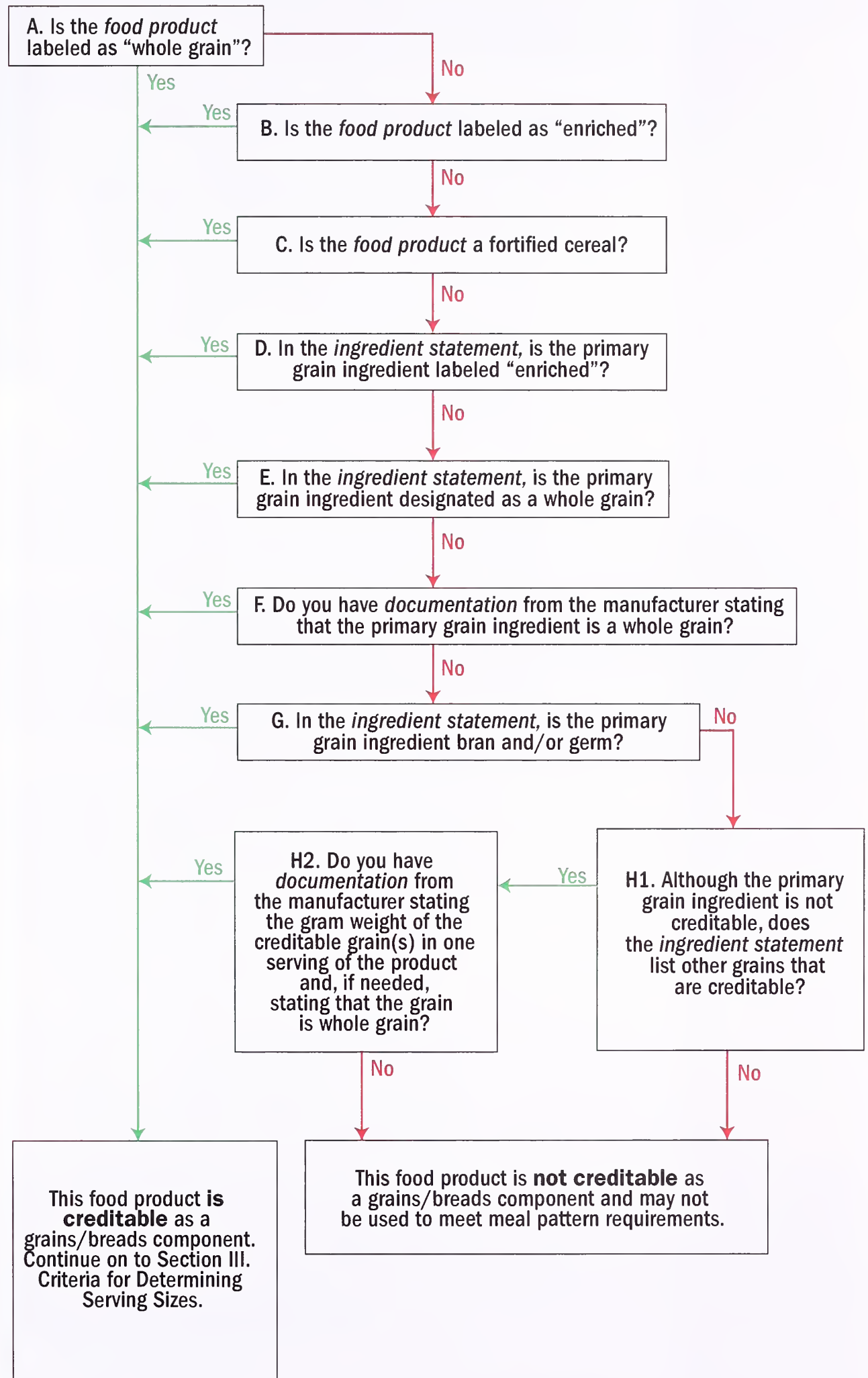
Once you have determined if a food product is creditable, it is important to read through Section III, Criteria for Determining Serving Sizes. This section will explain when to use Exhibit A of FCS Instruction 783.1, Rev 2<sup>1</sup> (see pages 3-15 & 3-16), or calculate grams of creditable grains (see pages 3-9 through 3-13) to determine the portion size required to provide one grains/breads serving.



<sup>1</sup> At the time this instruction was written, the Agency name was Food and Consumer Service (FCS).



## Flow Chart for Determining Grains/Breads Creditability



### III. Criteria for Determining Serving Sizes

There are two different ways to determine the portion size required to provide one grains/breads serving: by using Exhibit A of FCS Instruction 783.1, Rev 2, or by calculating the grams of creditable grains.

#### A. Determining Serving Sizes Based on Exhibit A:

- One grains/breads serving for commonly available food products can be determined using Exhibit A (see pages 3-15 & 3-16) of the FCS Grains/Breads Instruction 783.1, Rev. 2. The wide variety of prepared grains/breads food products listed in Exhibit A are grouped based on their average grain content. Food types having similar concentrations of creditable grains are grouped together. Each group in Exhibit A provides the minimum serving size needed to supply one full grains/breads serving. Use Exhibit A for products that are whole-grain, enriched, or fortified (if a cereal), or for products that have a creditable grain as the primary grain ingredient.
- The weight needed for the different groups of grains/breads food products to provide one grains/breads serving is different since different types of grains/breads food products have different concentrations of enriched or whole-grain meal and/or flour, bran, and/or germ.

##### 1. Exhibit A, Groups A-G:

- For the types of food products listed in Groups A-G, one grains/breads serving provides not less than 14.75 grams of enriched or whole-grain meal and/or flour, bran, and/or germ. The serving sizes (weights) given in Exhibit A, Groups A-G, may be used for grains/breads food products that are either commercially purchased or prepared on-site.
- Food products that are labeled whole-grain or enriched, and food products that have a creditable grain as the primary grain ingredient should provide the minimum of 14.75 grams of creditable grains per serving (without obtaining manufacturers documentation) as long as the minimum serving sizes (weights) given in Exhibit A are met. If the product is not whole-grain or enriched, or does not have a creditable grain for the primary grain ingredient, you must obtain manufacturer's documentation showing the amount of creditable grain(s) in one portion of the product. Once documentation is obtained, calculate the serving size based on the grams of creditable grains as shown in step B.



Exhibit A, Groups A-G provides the weight needed for 1/4, 1/2, and 3/4 of a grains/breads serving in addition to the weight needed for one grains/breads serving.

## 2. Exhibit A, Groups H & I:

For the types of food products listed in Groups H and I of Exhibit A to count as one grains/breads serving, the weights and volumes listed therein must be met.

When items in Groups H and I are served as cooked or cold breakfast cereals (such as cooked oatmeal, cooked millet, cooked rice served with milk and sugar, or cold cereal) or cooked pasta, the weights and volumes listed in Exhibit A, groups H or I must be used as noted. For example, the serving size required for one grains/breads serving of cooked oatmeal made from dry oats is 1/2 cup cooked or 25 grams dry oats.

There is an exception to the equivalency of one grains/breads serving for Group H as stated in Exhibit A. For the *School Breakfast Program* only, the traditional or enhanced meal patterns, *grades K-12*, and the enhanced meal pattern *option for grades 7-12*, by regulation, one grains/breads serving of cooked and ready-to-eat (cold dry) breakfast cereal is *3/4 cup or 1 ounce*. This means 3/4 cup or 1 ounce (whichever is less) for cold dry cereal, or 3/4 cup cooked cereal, count as one grains/breads serving. This serving size is different from the equivalency of one grains/breads serving of 1/2 cup cooked given in Exhibit A, Group H.

Some of the food products in Group H, such as dry oatmeal or cornmeal, may be used as a grain ingredient in a recipe as well as a cooked cereal. When the cereal grain items listed in Group H are used as an ingredient in a recipe such as oatmeal bread or cornmeal muffins (in contrast to being used as a cooked breakfast cereal) do not use the amounts listed in Group H. In this case, one grains/breads serving should be determined using the weights given in Groups A-G of Exhibit A corresponding to the appropriate food group, or calculated using 14.75 grams of the creditable grains in one portion of the recipe.

For example, the credit for oatmeal bread made using dry oats may be determined by two ways: 1) using the serving weight in Group B of Exhibit A which contains “bread” since the food type is now “bread,” or 2) using the information in “B” below to determine the serving size needed to provide 14.75 grams of creditable grains.



## B. Determining Serving Sizes Based on Creditable Grains Content:

- There are several situations where the creditable grains content would be used to calculate the serving size instead of using the serving weights given in Exhibit A. Some of these situations are: 1) a product is not whole-grain, enriched, or fortified (if a cereal) and the primary grain ingredient is not a creditable grain but there are creditable grains in the product; 2) a manufacturer claims that a product can provide the minimum of 14.75 grams of creditable grains per portion using a serving size less than the weights given in Exhibit A; 3) a product is made on site and you choose to calculate the serving size based on grams of creditable grains instead of using Exhibit A; or 4) a food product does not fit into one of the groups of Exhibit A.
- In the above cases, the menu planner will need to document or obtain documentation showing the weight of creditable grain(s) content of the grains/breads item. This will be easy for grains/breads items prepared on site, since the exact weight of the creditable grain(s) ingredient can be documented based on the recipe. For purchased products, the manufacturer will need to be contacted to obtain the required documentation showing the weight of creditable grain(s) per portion contained in a specific food product. Be aware that some manufacturers will not provide this information if they consider it proprietary information. If you have a situation where documentation is required, but the manufacturer cannot supply the documentation, you cannot use that product as a credited grains/breads component of a reimbursable meal.
- When the exact or minimum amount of creditable grains can be documented, the grains/breads serving for any grains/breads product found in Groups A through G may be calculated using 14.75 grams of creditable grains as one grains/breads serving. For manufacturer's documentation which provides the gram weight of creditable grain(s) per portion, you will want to start your calculation at step 2 below or at step 6 of the worksheet (see page 3-13).

<sup>2</sup> Creditable grains are enriched or whole-grain meal and/or flour, bran and/or germ.

Steps to determine how many creditable grains/breads servings a recipe yields:

- 1) Divide the total grams of “creditable grains” in the recipe by the number of portions the recipe yields: (Note: 1 lb = 453.6 grams). One “portion” is the amount of the food product you plan to serve; it is not necessarily equivalent to one grains/breads serving.

$$\frac{\text{total grams of enriched or whole-grain meal and/or flour, bran, and/or germ in the recipe}}{\text{number of portions the recipe yields}}$$

*This calculation gives you the total grams of creditable grains contained in one portion of your recipe.*

- 2) Divide the total grams of “creditable grains” in one portion by 14.75 grams: (note: 14.75 grams of creditable grains = one full grains/breads serving)

$$\frac{\text{Total grams of “creditable grains” in ONE portion}}{14.75 \text{ grams}}$$

= the number of grains/breads servings per portion

*This calculation gives you the number of creditable grains/breads servings per portion of the recipe. The smallest creditable serving of the grains/breads component is 1/4 serving.*

- 3) Round down to the nearest 1/4 grains/breads serving. To count as one full grains/breads serving, a food product must contain no less than 14.75 grams (0.52 ounces) of enriched or whole-grain meal and/or flour, bran, and/or germ.

## Worksheet for Calculating Grains/Breads Contribution from a Recipe for the Types of Food Products in Groups A-G, Using Grams of Creditable Grains

### Instructions:

1. On the worksheet, list each enriched or whole-grain meal and/or flour, bran, and/or germ ingredient in the recipe.
2. Fill in the quantity (cups, pounds, kilograms, ounces, grams, etc.) of each enriched or whole-grain meal and/or flour, bran, and/or germ ingredient in the recipe.
3. Convert the amount of each enriched or whole-grain meal and/or flour, bran, and/or germ ingredient in the recipe to grams. If you do not know the weight per cup of the grain you are using, here are some commonly used conversions:

Number of pounds of ingredient X 453.6 grams

Number of ounces of ingredient X 28.35 grams

Number of cups of *enriched white flour* X 125 grams

Number of cups of *regular rolled oats* X 81 grams

Number of cups of *quick-cooking oats* X 81 grams

Number of cups of *regular cornmeal* X 122 grams

Number of cups of *degermed, enriched cornmeal* X 138 grams

Number of cups of *stone ground cornmeal* X 132 grams

Number of cups of *wheat bran* X 58 grams

Number of cups of *wheat germ* X 115 grams

Number of cups of *whole wheat flour* X 120 grams

4. Add the grams for each grain ingredient to determine the total grams of enriched or whole-grain meal and/or flour, bran, and/or germ in the recipe.
5. Divide the total grams of creditable grains in the recipe by the number of portions in the recipe to determine the number of grams of creditable grains per portion of food product.
6. Divide the number of grams of creditable grains per portion by 14.75 grams (reference amount of enriched or whole-grain meal and/or flour, bran, and/or germ in one grains/breads serving).
7. Round down to the nearest 1/4 grains/breads serving.





**Worksheet:**

1. Creditable Grain Ingredient	2. Quantity	3. Convert to Grams	Grams
		X	=
		X	=
		X	=
		X	=
		4. Total Grams	=

5. Total grams *divided by* number of portions in recipe:

Total grams  
creditable grains =  
from step 4 \_\_\_\_\_  
\_\_\_\_\_ = \_\_\_\_\_ number of grams creditable  
Number of portions grains per portion  
per recipe = \_\_\_\_\_

6. Divide number of grams per portion (answer from step 5) by 14.75:

\_\_\_\_\_ = \_\_\_\_\_ grains/breads serving(s)  
14.75

7. Round *down* to the nearest 1/4 grains/breads serving.

= \_\_\_\_\_ creditable grains/breads servings

## Grains/Breads Chart Introduction

The following Chart titled "Exhibit A - Grains/Breads for the Food-Based Menu Planning Alternatives in the Child Nutrition Programs" provides a general guideline for crediting prepared grains/breads items. The chart is taken from the FCS Grains/Breads Instruction 783-1, Revision 2.

Once you have determined that a food product qualifies as a grains/breads component (see pages 3-3 through 3-7), find the Group on the chart containing the name of the food product. Read the minimum serving size for that group on the right-hand side of the chart.





**FCS Instruction 783.1 Rev 2: Exhibit A**  
**GRAINS/BREADS FOR THE FOOD-BASED MENU PLANNING ALTERNATIVES**  
**IN THE CHILD NUTRITION PROGRAMS<sup>1, 2</sup>**

<b>Group A</b>	<b>Minimum Serving Size for Group A</b>
<ul style="list-style-type: none"> <li>• Bread type coating</li> <li>• Bread sticks (hard)</li> <li>• Chow mein noodles</li> <li>• Crackers (saltines and snack crackers)</li> <li>• Croutons</li> <li>• Pretzels (hard)</li> <li>• Stuffing (dry) Note: weights apply to bread in stuffing.</li> </ul>	1 serving = 20 gm or 0.7 oz 3/4 serving = 15 gm or 0.5 oz 1/2 serving = 10 gm or 0.4 oz 1/4 serving = 5 gm or 0.2 oz
<b>Group B</b>	<b>Minimum Serving Size for Group B</b>
<ul style="list-style-type: none"> <li>• Bagels</li> <li>• Batter type coating</li> <li>• Biscuits</li> <li>• Breads (white, wheat, whole wheat, French, Italian)</li> <li>• Buns (hamburger and hot dog)</li> <li>• Crackers (graham crackers - all shapes, animal crackers)</li> <li>• Egg roll skins</li> <li>• English muffins</li> <li>• Pita bread (white, wheat, whole wheat)</li> <li>• Pizza crust</li> <li>• Pretzels (soft)</li> <li>• Rolls (white, wheat, whole wheat, potato)</li> <li>• Tortillas (wheat or corn)</li> <li>• Tortilla chips (wheat or corn)</li> <li>• Taco shells</li> </ul>	1 serving = 25 gm or 0.9 oz 3/4 serving = 19 gm or 0.7 oz 1/2 serving = 13 gm or 0.5 oz 1/4 serving = 6 gm or 0.2 oz
<b>Group C</b>	<b>Minimum Serving Size for Group C</b>
<ul style="list-style-type: none"> <li>• Cookies<sup>3</sup> (plain)</li> <li>• Cornbread</li> <li>• Corn muffins</li> <li>• Croissants</li> <li>• Pancakes</li> <li>• Pie crust (dessert pies<sup>3</sup>, fruit turnovers<sup>4</sup>, and meat/meat alternate pies)</li> <li>• Waffles</li> </ul>	1 serving = 31 gm or 1.1 oz 3/4 serving = 23 gm or 0.8 oz 1/2 serving = 16 gm or 0.6 oz 1/4 serving = 8 gm or 0.3 oz

<sup>1</sup>The following foods are whole-grain or enriched or made with enriched or whole-grain meal and/or flour, bran, and/or germ.

<sup>2</sup>Some of the following foods, or their accompaniments may contain more sugar, salt, and/or fat than others. This should be a consideration when deciding how often to serve them.

<sup>3</sup>Allowed only for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP.

<sup>4</sup>Allowed for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP, and for breakfasts served under the SBP, SFSP, and CACFP.



<b>Group D</b>	<b>Minimum Serving Size for Group D</b>
<ul style="list-style-type: none"> <li>• Doughnuts<sup>4</sup> (cake and yeast raised, unfrosted)</li> <li>• Granola bars<sup>4</sup> (plain)</li> <li>• Muffins (all, except corn)</li> <li>• Sweet rolls<sup>4</sup> (unfrosted)</li> <li>• Toaster pastries<sup>4</sup> (unfrosted)</li> </ul>	1 serving = 50 gm or 1.8 oz 3/4 serving = 38 gm or 1.3 oz 1/2 serving = 25 gm or 0.9 oz 1/4 serving = 13 gm or 0.5 oz
<b>Group E</b>	<b>Minimum Serving Size for Group E</b>
<ul style="list-style-type: none"> <li>• Cookies<sup>3</sup> (with nuts, raisins, chocolate pieces and/or fruit purees)</li> <li>• Doughnuts<sup>4</sup> (cake and yeast raised, frosted or glazed)</li> <li>• French toast</li> <li>• Grain fruit bars<sup>4</sup></li> <li>• Granola bars<sup>4</sup> (with nuts, raisins, chocolate pieces and/or fruit)</li> <li>• Sweet rolls<sup>4</sup> (frosted)</li> <li>• Toaster pastries<sup>4</sup> (frosted)</li> </ul>	1 serving = 63 gm or 2.2 oz 3/4 serving = 47 gm or 1.7 oz 1/2 serving = 31 gm or 1.1 oz 1/4 serving = 16 gm or 0.6 oz
<b>Group F</b>	<b>Minimum Serving Size for Group F</b>
<ul style="list-style-type: none"> <li>• Cake<sup>3</sup> (plain, unfrosted)</li> <li>• Coffee cake<sup>4</sup></li> </ul>	1 serving = 75 gm or 2.7 oz 3/4 serving = 56 gm or 2 oz 1/2 serving = 38 gm or 1.3 oz 1/4 serving = 19 gm or 0.7 oz
<b>Group G</b>	<b>Minimum Serving Size for Group G</b>
<ul style="list-style-type: none"> <li>• Brownies<sup>3</sup> (plain)</li> <li>• Cake<sup>3</sup> (all varieties, frosted)</li> </ul>	1 serving = 115 gm or 4 oz 3/4 serving = 86 gm or 3 oz 1/2 serving = 58 gm or 2 oz 1/4 serving = 29 gm or 1 oz
<b>Group H</b>	<b>Minimum Serving Size for Group H</b>
<ul style="list-style-type: none"> <li>• Barley</li> <li>• Breakfast cereals (cooked)<sup>5, 6</sup></li> <li>• Bulgur or cracked wheat</li> <li>• Macaroni (all shapes)</li> <li>• Noodles (all varieties)</li> <li>• Pasta (all shapes)</li> <li>• Ravioli (noodle only)</li> <li>• Rice (enriched white or brown)</li> </ul>	1 serving = 1/2 cup cooked (or 25 gm dry)
<b>Group I</b>	<b>Minimum Serving Size for Group I</b>
<ul style="list-style-type: none"> <li>• Ready to eat breakfast cereal (cold dry)<sup>5, 6</sup></li> </ul>	1 serving = 3/4 cup or 1 oz, whichever is less

<sup>3</sup>Allowed only for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP.

<sup>4</sup>Allowed for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP, and for breakfasts served under the SBP, SFSP, and CACFP.

<sup>5</sup>Refer to program regulations for the appropriate serving size for supplements served to children aged 1 through 5 in the NSLP; breakfasts served under the SBP; and meals served to children ages 1 through 5 and adult participants in the CACFP. Breakfast cereals are traditionally served as a breakfast menu item but may be served in meals other than breakfast.

<sup>6</sup>Cereals may be whole-grain, enriched, or fortified.

## Factors Affecting Yield

The data for grains/breads in the following table include yield information on **common types** and **customary portion sizes** of products that you can buy on the market. All grains/breads items – commercially baked or school baked – must meet the criteria noted on page 3-3.

The approximate weight of a serving of grains/breads is given in the table. If the weight of a serving differs from the approximate weight given, you may need to make adjustments in the amount you buy (see pages I-3 & I-4 for information on determining in-house yield data).

## Explanation of the Columns

- Column 1    **Food As Purchased, AP:** In general, foods are arranged in alphabetical order. The Group letter is listed for each product. For additional information on these groups, see Exhibit A (pages 3-15 & 3-16).
- Column 2    **Purchase Unit:** The purchase unit for grains/breads is generally by the pound or, for cold dry cereals, a package. You can use data for one purchase unit to determine how much of the item you need for the number of people you serve.
- Column 3    **Servings per Purchase Unit, EP:** This column shows the number of servings of a given size obtained from each purchase unit. Numbers in this column are often rounded down in order to help ensure enough food for the number of servings.
- Column 4    **Serving Size per Meal Contribution:** The size of a serving is expressed in volume and/or weight. The number of grains/breads servings is given in parentheses for sliced bread and crackers.

Note that the minimum requirements for cereals and cereal grains are different for each program.

### School Breakfast Program (Traditional and Enhanced)

*Ages 1-2:*        1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

*Preschool:*     1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/3 cup cooked cereal grain,

*Grades K-12:* 3/4 cup or 1 ounce (whichever is less) cold dry cereal *or* 3/4 cup cooked cereal grain,

### National School Lunch Program (Traditional and Enhanced)

*All levels:*       1/2 cup cooked cereal grain

### **Afterschool Snacks**

- Ages 1-2:* 1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,
- Ages 3-5:* 1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,
- Ages 6-12:* 3/4 cup or 1 oz (whichever is less) cold dry cereal *or* 1/2 cup cooked cereal grain,

### **Child and Adult Care Food Program**

#### *Breakfast*

- Ages 1-2:* 1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,
- Ages 3-5:* 1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,
- Ages 6-12:* 3/4 cup or 1 oz (whichever is less) cold dry cereal *or* 1/2 cup cooked cereal grain,
- Adults:* 1-1/2 cup or 2 oz (whichever is less) cold dry cereal *or* 1 cup cooked cereal grain,

#### *Lunch and Supper*

- Ages 1-2 and 3-5:* 1/4 cup cooked cereal grain,
- Ages 6-12:* 1/2 cup cooked cereal grain,
- Adult:* 1 cup cooked cereal grain,

#### *Snacks*

- Ages 1-2:* 1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,
- Ages 3-5:* 1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,
- Ages 6-12 and Adults:* 3/4 cup or 1 oz (whichever is less) cold dry cereal *or* 1/2 cup cooked cereal grain,



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### Summer Food Service Program

*Breakfast and Snacks*      3/4 cup or 1 oz (whichever is less)  
cold dry cereal, or 1/2 cup cooked cereal  
grain

*Lunch or Supper*            1/2 cup cooked cereal grain.

Note: Dry cereals vary greatly in number of servings per pound or package. Check the cereal box for the number and/or size of servings.

Column 5      **Purchase Units for 100 Servings:** This column shows the number of purchase units needed for 100 servings. Numbers in this column are generally rounded up in order to help ensure enough food for the number of servings.

Column 6      **Additional Yield Information:** This column gives other information to help you calculate the amount of food you need to prepare meals. For example, the number of cups you will get from one pound of food as purchased is shown for many grains/breads items.

# Food Buying Guide for Child Nutrition Programs

## Section 3 Grains/Breads

### Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
BARLEY					
Barley (Group H) Dry	Pound	42.0	1/4 cup cooked	2.4	1 lb dry = about 2-1/3 cups dry barley
	Pound	21.2	1/2 cup cooked	4.8	
	Pound	14.1	3/4 cup cooked	7.1	
BREAD <sup>3</sup>					
Bread (Group B) Sliced <sup>3</sup> Fresh All types - white, rye, whole wheat, raisin, quick bread, etc.	Pound	32.0	1/2 grains/breads serving (1/2 slice; must weigh at least 13 g or 0.5 oz)	3.2	
	Pound	16.0	1 grains/breads serving (1 slice; must weigh at least 25 g or 0.9 oz)	6.3	
BREAD STICKS					
Bread Sticks (Group A) Hard	Pound	45.3	1/2 grains/breads serving (about 2 sticks; must weigh at least 10 g or 0.4 oz)	2.2	7-3/4 inches long, 3/4-inch diameter
	Pound	22.6	1 grains/breads serving (about 3 sticks; must weigh at least 20 g or 0.7 oz)	4.5	
BULGUR					
Bulgur (Group H) Dry	Pound	39.2	1/4 cup cooked	2.6	1 lb dry = about 3 cups dry bulgur
	Pound	19.6	1/2 cup cooked	5.1	
	Pound	13.0	3/4 cup cooked	7.7	

<sup>3</sup> The number of slices per purchase unit does not include the end slices

## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CEREAL GRAINS</b>					
Cereal Grains <b>Amaranth (Group H)</b> Dry	Pound	19.6	1/4 cup cooked	5.1	1 lb dry = about 2-1/3 cups dry or 2.70 lb (about 4-5/8 cups) cooked amaranth when prepared with 2 parts water to 1 part dry amaranth
	Pound	9.82	1/2 cup cooked	10.2	
	Pound	6.54	3/4 cup cooked	15.3	
Cereal Grains <b>Buckwheat (Group H)</b> Dry	Pound	22.8	1/4 cup cooked	4.4	1 lb dry = about 2-1/3 cups dry or 3.06 lb (about 5-2/3 cups) cooked buckwheat when prepared with 2 parts water to 1 part dry buckwheat
	Pound	11.4	1/2 cup cooked	8.8	
	Pound	7.61	3/4 cup cooked	13.2	
Cereal Grains <b>Cornmeal (Group H)</b> Dry	Pound	50.7	1/4 cup cooked	2.0	1 lb dry = about 3 cups dry cornmeal
	Pound	25.3	1/2 cup cooked	4.0	
	Pound	16.9	3/4 cup cooked	6.0	
Cereal Grains <b>Cornmeal (Group H)</b> Stone ground Dry	Pound	57.3	1/4 cup cooked	1.8	1 lb dry = about 3-3/8 cups dry, stone-ground cornmeal
	Pound	28.6	1/2 cup cooked	3.5	
	Pound	19.1	3/4 cup cooked	5.3	
Cereal Grains <b>Corn Grits (Group H)</b> Instant Dry	Pound	54.7	1/4 cup cooked	1.9	1 lb dry = about 5-3/4 cups dry, instant corn grits
	Pound	27.4	1/2 cup cooked	3.7	
	Pound	18.2	3/4 cup cooked	5.5	



## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CEREAL GRAINS (continued)</b>					
Cereal Grains <b>Corn Grits (Group H)</b> <i>Quick Dry</i>	Pound	45.0	1/4 cup cooked	2.3	1 lb dry = about 2-3/4 cups dry, quick grits
	Pound	22.4	1/2 cup cooked	4.5	
	Pound	15.0	3/4 cup cooked	6.7	
Cereal Grains <b>Corn Grits (Group H)</b> <i>Regular Dry</i>	Pound	50.3	1/4 cup cooked	2.0	1 lb dry = about 2-3/4 cups dry, regular grits
	Pound	25.1	1/2 cup cooked	4.0	
	Pound	16.7	3/4 cup cooked	6.0	
Cereal Grains <b>Farina (Group H)</b> <i>Instant Dry</i>	Pound	45.5	1/4 cup cooked	2.2	1 lb dry = about 2-3/8 cups dry, instant farina
	Pound	22.7	1/2 cup cooked	4.4	
	Pound	15.1	3/4 cup cooked	6.6	
Cereal Grains <b>Farina (Group H)</b> <i>Regular Dry</i>	Pound	58.9	1/4 cup cooked	1.7	1 lb dry = about 2-1/2 cups dry, regular farina
	Pound	29.4	1/2 cup cooked	3.4	
	Pound	19.6	3/4 cup cooked	5.1	
Cereal Grains <b>Farina (Group H)</b> <i>Quick Dry</i>	Pound	58.1	1/4 cup cooked	1.8	1 lb dry = about 2-1/2 cups dry, quick farina
	Pound	29.0	1/2 cup cooked	3.5	
	Pound	19.3	3/4 cup cooked	5.2	
Cereal Grains <b>Kasha (Group H)</b> <i>Dry</i>	Pound	21.1	1/4 cup cooked	4.8	1 lb dry = about 2-3/8 cups dry or 2.92 lb (about 5-1/4 cups) cooked kasha when prepared with 2 parts water to 1 part dry kasha
	Pound	10.5	1/2 cup cooked	9.6	
	Pound	7.05	3/4 cup cooked	14.2	

## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CEREAL GRAINS (continued)</b>					
Cereal Grains <b>Millet (Group H)</b> Dry	Pound	22.9	1/4 cup cooked	4.4	1 lb dry = about 2-1/8 cups dry or 2.30 lb (about 5-5/8 cups) cooked millet when prepared with 1-1/2 parts water to 1 part dry millet
	Pound	11.4	1/2 cup cooked	8.8	
	Pound	7.64	3/4 cup cooked	13.1	
Cereal Grains <b>Oats (Group H)</b> Rolled Instant Enriched Dry	Pound	46.9	1/4 cup cooked	2.2	1 lb dry = about 5-2/3 cups dry, instant, rolled oats
	Pound	23.4	1/2 cup cooked	4.3	
	Pound	15.6	3/4 cup cooked	6.5	
Cereal Grains <b>Oats (Group H)</b> Rolled Quick Dry	Pound	47.6	1/4 cup cooked	2.1	1 lb dry = about 6-1/4 cups dry, quick, rolled oats
	Pound	23.8	1/2 cup cooked	4.2	
	Pound	15.8	3/4 cup cooked	6.4	
Cereal Grains <b>Oats (Group H)</b> Rolled Regular Dry Includes USDA Commodity	Pound	45.4	1/4 cup cooked	2.2	1 lb dry = about 6 cups dry, regular, rolled oats
	Pound	22.7	1/2 cup cooked	4.4	
	Pound	15.1	3/4 cup cooked	6.7	
Cereal Grains <b>Quinoa (Group H)</b> Dry	Pound	26.4	1/4 cup cooked	3.8	1 lb dry = about 2-1/2 cups dry or 2.51 lb (6-1/2 cups) cooked quinoa when prepared with 2 parts water to 1 part dry quinoa
	Pound	13.2	1/2 cup cooked	7.6	
	Pound	8.81	3/4 cup cooked	11.4	

### Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
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#### CEREAL GRAINS (continued)

Cereal Grains <b>Wheat Berries</b> (Group H) <i>Dry</i>	Pound	24.0	1/4 cup cooked	4.2	1 lb dry = about 2-1/4 cups dry or 2.77 lb (about 6 cups) cooked wheat berries when prepared with 3 parts water to 1 part dry wheat berries
	Pound	12.0	1/2 cup cooked	8.4	
	Pound	8.00	3/4 cup cooked	12.5	
Cereal Grains <b>Wheat Cereal</b> (Group H) <i>Instant Dry</i>	Pound	49.1	1/4 cup cooked	2.1	1 lb dry = about 4 cups dry, instant, wheat cereal
	Pound	24.5	1/2 cup cooked	4.1	
	Pound	16.3	3/4 cup cooked	6.2	
Cereal Grains <b>Wheat Cereal</b> (Group H) <i>Regular Dry</i>	Pound	49.2	1/4 cup cooked	2.1	1 lb dry = about 3-1/3 cups dry, regular, wheat cereal
	Pound	24.6	1/2 cup cooked	4.1	
	Pound	16.4	3/4 cup cooked	6.1	
Cereal Grains <b>Wheat, Rolled</b> (Group H) <i>Dry</i> <i>Includes USDA Commodity</i>	Pound	38.0	1/4 cup cooked	2.7	1 lb dry = about 2-3/8 cups dry or 4.83 lb (about 9-1/2 cups) cooked rolled wheat when prepared with 3-1/2 parts water to 1 part dry rolled wheat
	Pound	19.0	1/2 cup cooked	5.3	
	Pound	12.6	3/4 cup cooked	8.0	

#### CEREALS, READY-TO-EAT

Cereals, Ready-to-eat <b>Wheat, Corn, Rice, Oats, Granola</b> (Group I)	Single Serve Package	1.00	1 grains/breads serving (3/4 cup or 1.0 oz, whichever is less)	100.0	Package contents vary with the cereal—flakes, biscuits, shreds, granules, etc.
Cereals, Ready-to-eat <b>Wheat Germ</b> (Group I) <i>Toasted Dry</i>	Pound	13.0	1 grains/breads serving (about 1/4 cup dry; must weigh at least 28.35 g or 1.0 oz dry)	7.7	1 lb dry = about 3-1/4 cups dry wheat germ



## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>CHOW MEIN NOODLES</b>					
<b>Chow Mein Noodles (Group A)</b>	Pound	34.8	1/2 grains/breads serving (about 1/4 cup; must weigh at least 10 g or 0.4 oz)	2.9	
	Pound	17.4	1 grains/breads serving (about 1/2 cup; must weigh at least 20 g or 0.7 oz)	5.8	
<b>CORN CHIPS</b>					
<b>Corn Chips (Group B)</b>	Pound	20.0	3/4 grains/breads serving (about 1/2 cup; must weigh at least 13 g or 0.5 oz)	5.0	
	Pound	15.0	1 grains/breads serving (about 2/3 cup; must weigh at least 25 g or 0.9 oz)	6.7	
<b>COUSCOUS</b>					
<b>Couscous (Group H) Dry</b>	Pound	29.1	1/4 cup cooked	3.5	1 lb dry = about 2-3/8 cups dry couscous
	Pound	14.5	1/2 cup cooked	6.9	add 3-1/4 cups water to 1 lb dry couscous
	Pound	9.71	3/4 cup cooked	10.3	1 lb dry = 2.55 lb (about 7-1/4 cups) cooked couscous
<b>CROUTONS</b>					
<b>Croutons (Group A) Prepackaged Dry</b>	Pound	44.6	1/2 grains/breads serving (about 1/4 cup dry; must weigh at least 10 g or 0.4 oz)	2.3	1 lb dry = about 11-1/8 cups dry croutons
	Pound	22.3	1 grains/breads serving (about 1/2 cup dry; must weigh at least 20 g or 0.7 oz)	4.5	

### Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>GRAHAM CRACKERS</b>					
<b>Graham Crackers (Group B)</b>	Pound	32.4	1/2 grains/breads serving (about 2 crackers; must weigh at least 13 g or 0.5 oz)	3.1	1 lb AP = about 64 crackers
	Pound	21.3	1 grains/breads serving (about 4 crackers; must weigh at least 25 g or 0.9 oz)	4.7	
<b>MELBA TOAST</b>					
<b>Melba Toast (Group A)</b>	Pound	37.8	1/2 grains/breads serving (about 3 pieces; must weigh at least 10 g or 0.4 oz)	2.7	
	Pound	22.2	1 grains/breads serving (about 5 pieces; must weigh at least 20 g or 0.7 oz)	4.5	
<b>PASTA</b>					
<b>Pasta (Group H)</b> <i>Bowties</i> <i>Large size</i> <i>Dry</i>	Pound	25.1	1/4 cup cooked	4.0	1 lb dry = about 7-1/2 cups dry bowtie pasta
	Pound	12.5	1/2 cup cooked	8.0	1 lb dry = 2.66 lb (about 6-1/4 cups) cooked pasta boiled 17 minutes
	Pound	8.39	3/4 cup cooked	12.0	
<b>Pasta (Group H)</b> <i>Elbow Macaroni</i> <i>Regular</i> <i>Dry</i>	Pound	39.0	1/4 cup cooked	2.6	1 lb dry = about 3-1/2 cups dry elbow macaroni
	Pound	19.5	1/2 cup cooked	5.2	
	Pound	13.0	3/4 cup cooked	7.7	
<b>Pasta (Group H)</b> <i>Noodles</i> <i>Egg</i> <i>Medium</i> <i>Dry</i>	Pound	40.3	1/4 cup cooked	2.5	1 lb dry = about 11-7/8 cups dry egg noodles
	Pound	20.1	1/2 cup cooked	5.0	
	Pound	13.4	3/4 cup cooked	7.5	

## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PASTA (continued)</b>					
<b>Pasta (Group H)</b> <i>Noodles</i> <i>Lasagna</i> <i>Dry</i>	Pound	28.3	1/4 cup cooked	3.6	1 lb dry = about 21 pieces dry lasagna noodles
	Pound	14.1	1/2 cup cooked	7.1	1 lb dry = 2.66 lb (about 7 cups) cooked pasta boiled 15 minutes
	Pound	9.46	3/4 cup cooked	10.6	
<b>Pasta (Group H)</b> <i>Noodles</i> <i>Lasagna sheets</i> <i>Frozen</i>	Pound	13.9	1/4 cup cooked	7.2	1 lb frozen = about 3-3/4 frozen lasagna sheets
	Pound	6.96	1/2 cup cooked	14.4	1 lb AP = 1.47 lb (about 2-1/2 sheets) cooked pasta boiled 4 minutes
	Pound	4.64	3/4 cup cooked	21.6	
<b>Pasta (Group H)</b> <i>Noodles</i> <i>Ramen</i> <i>Dry</i>	Pound	25.4	1/4 cup cooked	4.0	1 lb dry = about 5-1/2 cups dry ramen noodles
	Pound	12.7	1/2 cup cooked	7.9	1 lb dry = 3.07 lb (about 6-1/3 cups) cooked pasta boiled 3 minutes
	Pound	8.48	3/4 cup cooked	11.8	
<b>Pasta (Group H)</b> <i>Orzo</i> <i>Dry</i>	Pound	25.5	1/4 cup cooked	4.0	1 lb dry = about 2-3/8 cups dry orzo pasta
	Pound	12.7	1/2 cup cooked	7.9	1 lb dry = 3.07 lb (about 6-3/8 cups) cooked orzo pasta boiled 9 minutes
	Pound	8.53	3/4 cup cooked	11.8	
<b>Pasta (Group H)</b> <i>Penne</i> <i>Dry</i>	Pound	31.2	1/4 cup cooked	3.2	1 lb dry = about 5-1/8 cups dry penne pasta
	Pound	15.6	1/2 cup cooked	6.5	1 lb dry = 2.60 lb (about 7-3/4 cups) cooked pasta boiled 14 minutes
	Pound	10.4	3/4 cup cooked	9.7	



## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>PASTA (continued)</b>					
<b>Pasta (Group H)</b> Shells Large size (for stuffing) Dry	Pound	25.3	1/4 cup cooked (about 2 shells)	4.0	1 lb dry = about 10-7/8 cups dry large shell pasta
	Pound	12.6	1/2 cup cooked (about 4 shells)	8.0	1 lb dry = 2.27 lb (about 6-1/3 cups) cooked pasta shells boiled 14 minutes
<b>Pasta (Group H)</b> Shells Medium Dry	Pound	26.7	1/4 cup cooked	3.8	1 lb dry = about 6 cups dry medium shell pasta
	Pound	13.3	1/2 cup cooked	7.6	1 lb dry = 2.53 lb (about 6-2/3 cups) cooked pasta
	Pound	8.93	3/4 cup cooked	11.2	1/4 cup cooked = about 17 shells boiled 12 minutes
<b>Pasta (Group H)</b> Spaghetti Regular Dry	Pound	21.2	1/4 cup cooked <i>al dente</i>	4.8	1 lb dry = about 3-1/4 cups dry spaghetti pieces
	Pound	10.6	1/2 cup cooked <i>al dente</i>	9.5	1 lb dry = 2.37 lb (about 5-1/4 cups) <i>al dente</i> cooked pasta (boiled 8 minutes)
	Pound	7.06	3/4 cup cooked <i>al dente</i>	14.2	
<b>Pasta (Group H)</b> Spiral (Rotini) Dry	Pound	33.8	1/4 cup cooked	3.0	1 lb dry = about 5-3/8 cups dry spiral pasta
	Pound	16.9	1/2 cup cooked	6.0	
	Pound	11.2	3/4 cup cooked	9.0	
<b>Pasta (Group H)</b> Wagon Wheels Medium size Dry	Pound	31.1	1/4 cup cooked	3.3	1 lb dry = about 5 cups dry wagon wheel pasta
	Pound	15.5	1/2 cup cooked	6.5	1 lb dry = 2.79 lb (about 7-3/4 cups) cooked pasta boiled 12 minutes
	Pound	10.3	3/4 cup cooked	9.7	

## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>RICE<sup>4</sup></b>					
<b>Rice (Group H)<sup>4</sup></b> <i>Brown Instant Dry</i>	Pound	28.8	1/4 cup cooked	3.5	1 lb dry = about 4-3/8 cups dry rice
	Pound	14.4	1/2 cup cooked	7.0	1 lb dry = about 7-1/8 cups cooked
	Pound	9.62	3/4 cup cooked	10.4	1 cup dry = about 1-2/3 cups cooked
<b>Rice (Group H)<sup>4</sup></b> <i>Brown Long grain Regular Dry</i>	Pound	17.5	1/4 cup cooked	5.8	1 lb dry = about 2-1/2 cups dry rice
	Pound	8.75	1/2 cup cooked	11.5	1 lb dry = about 4-3/8 cups cooked
	Pound	5.83	3/4 cup cooked	17.2	1 cup dry = about 1-3/4 cups cooked
<b>Rice (Group H)<sup>4</sup></b> <i>White Long grain Parboiled (Converted) Dry</i>	Pound	17.5	1/4 cup cooked	5.8	1 lb dry = about 2-1/2 cups dry rice
	Pound	8.75	1/2 cup cooked	11.5	1 lb dry = about 4-3/8 cups cooked
	Pound	5.83	3/4 cup cooked	17.2	1 cup dry = about 1-3/4 cups cooked
<b>Rice (Group H)<sup>4</sup></b> <i>White Long grain Instant Dry</i>	Pound	28.0	1/4 cup cooked prepared with boiling water	3.6	1 lb dry = about 4-1/2 cups dry rice
	Pound	14.0	1/2 cup prepared with boiling water	7.2	1 lb dry = about 7 cups cooked
	Pound	7.00	3/4 cup prepared with boiling water	14.3	1 cup dry = about 1-1/2 cups cooked
<b>Rice (Group H)<sup>4</sup></b> <i>White Long grain Regular Dry</i>	Pound	30.0	1/4 cup cooked	3.4	1 lb dry = about 2-1/3 cups dry rice
	Pound	15.0	1/2 cup cooked	6.7	1 lb dry = about 7-1/2 cups cooked
	Pound	10.0	3/4 cup cooked	10.0	1 cup dry = about 3-1/4 cups cooked

<sup>4</sup>The yield for rice differs depending on how it is cooked. The yields provided in this guide represent the lower range of the average yield for each type of rice. If you consistently get a different yield for your cooking method, you may want to see pages I-3 & I-4 of the introduction on how to establish in-house yield data in cooperation with your State agency.

## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>RICE<sup>4</sup> (continued)</b>					
<b>Rice (Group H)<sup>4</sup></b> White Medium grain Regular Dry	Pound	27.0	1/4 cup cooked	3.8	1 lb dry = about 2-1/4 cups dry rice
	Pound	13.5	1/2 cup cooked	7.5	1 lb dry = about 6-3/4 cups cooked
	Pound	9.00	3/4 cup cooked	11.2	1 cup dry = about 3 cups cooked
<b>Rice (Group H)<sup>4</sup></b> White Short grain Regular Dry	Pound	27.0	1/4 cup cooked	3.8	1 lb dry = about 2-1/4 cups dry rice
	Pound	13.5	1/2 cup cooked	7.5	1 lb dry = about 6-3/4 cups cooked
	Pound	9.00	3/4 cup cooked	11.2	1 cup dry = about 3 cups cooked
<b>RICE CAKES<sup>5</sup></b>					
<b>Rice Cakes<sup>5</sup></b> (Group A) Puffed Includes seeds or other grains	Package (average 5.25 oz)	10.7	1/2 grains/breads serving (about 1-1/2 cakes, puffed; must weigh at least 10 g or 0.4 oz)	9.3	1 lb AP = about 48 rice cakes
	Package (average 5.25 oz)	5.30	1 grains/breads serving (about 3 cakes, puffed; must weigh at least 20 g or 0.7 oz)	18.8	
<b>RYE WAFERS</b>					
<b>Rye Wafers</b> (Group A)	Pound	36.0	1/2 grains/breads serving (about 2 wafers; must weigh at least 10 g or 0.4 oz)	2.8	
	Pound	18.0	1 grains/breads serving (about 4 wafers; must weigh at least 20 g or 0.7 oz)	5.6	

<sup>4</sup>The yield for rice differs depending on how it is cooked. The yields provided in this guide represent the lower range of the average yield for each type of rice. If you consistently get a different yield for your cooking method, you may want to see pages I-3 & I-4 of the introduction on how to establish in-house yield data in cooperation with your State agency.

<sup>5</sup>Does not include popcorn cakes or popcorn in combination with other grains since popcorn is not creditable towards meal pattern requirements.



## Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>SALTINES</b>					
Saltines (Group A)	Pound	41.2	1/2 grains/breads serving (about 4 crackers; must weigh at least 10 g or 0.4 oz)	2.5	
	Pound	20.6	1 grains/breads serving (about 8 crackers; must weigh at least 20 g or 0.7 oz)	4.9	
<b>SODA CRACKERS</b>					
Soda Crackers (Group A)	Pound	45.0	1/2 grains/breads serving (about 2 crackers; must weigh at least 10 g or 0.4 oz)	2.3	
	Pound	22.5	1 grains/breads serving (about 4 crackers; must weigh at least 20 g or 0.7 oz)	4.5	
<b>TACO/TOSTADA SHELLS</b>					
Taco/Tostada Shells (Group B)	Dozen	12.0	1/2 grains/breads serving (about 1 taco/tostada shell; must weigh at least 13 g or 0.5 oz)	8.4	
	Dozen	6.00	1 grains/breads serving (about 2 taco/tostada shells; must weigh at least 25 g or 0.9 oz)	16.7	
<b>WILD RICE</b>					
Wild Rice (Group H) Dry	Pound	34.8	1/4 cup cooked	2.9	1 lb dry = about 2-2/3 cups dry wild rice
	Pound	17.4	1/2 cup cooked	5.8	2-1/2 cups water to 1 cup dry wild rice
	Pound	11.6	3/4 cup cooked	8.7	1 lb dry = 2.55 lb (about 8-2/3 cups) cooked wild rice

### Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>WILD RICE (continued)</b>					
Wild Rice and Enriched White Rice Mix (Group H) Dry	Pound	28.7	1/4 cup cooked	3.5	1 lb dry = about 2-3/8 cups dry mixed rice
	Pound	14.3	1/2 cup cooked	7.0	2-1/4 cups water to 1 cup dry rice mix
	Pound	9.57	3/4 cup cooked	10.5	1 lb dry = 3.21 lb (about 7-1/8 cups) cooked rice mix
<b>ZWEIBACK</b>					
Zweiback (Group A)	Pound	32.4	1/2 grains/breads serving (about 2 pieces; must weigh at least 10 g or 0.4 oz)	3.1	
	Pound	21.3	1 grains/breads serving (about 3 pieces; must weigh at least 20 g or 0.7 oz)	4.7	



## Section

# 4

## Food Buying Guide for Child Nutrition Programs

# Milk



4-1 Fluid Milk for the Child Nutrition Programs

4-2 Yield Data Table for Milk





## Section

# 4

## Food Buying Guide for Child Nutrition Programs

# Milk

### Fluid Milk for the Child Nutrition Programs

Regulations for most Child Nutrition Programs require that fluid milk must be offered at each breakfast, lunch, or supper. Fluid milk is not required to be served with the adult supper in the Child and Adult Care Food Program (CACFP). Fluid milk is one of the options for a snack in the CACFP, the Summer Food Service Program (SFSP), and the afterschool snack service in the National School Lunch Program (NSLP).

In a lunch or a supper, the fluid milk must be served as a beverage. For a breakfast or a snack, you may serve the fluid milk as a beverage, on cereal, or both.

In the School Breakfast Program, the CACFP, and the SFSP, fluid milk includes whole milk, lowfat milk, reduced fat milk, skim milk or nonfat milk, cultured buttermilk, lactose-reduced milk or lactose-free milk, acidified milk, or flavored milk made from types of fluid milk that meet State or local standards.

Schools participating in the NSLP must offer students fluid milk. The selection of the types of milk offered must be consistent with the types of milk consumed in the prior year. This requirement does not preclude schools from offering additional kinds of milk. However, in the event that a particular type of milk represents less than one (1) percent of the total amount of milk consumed in a previous year, a school may elect not to make this type of milk available. Schools are encouraged to offer a wide variety of milks. Since some children may be lactose intolerant, it may be a good idea to offer lactose-reduced milk or lactose-free milk as a choice.

Fluid milk includes pasteurized fluid unflavored or flavored skim milk or nonfat milk, lowfat milk, whole milk, lactose-reduced milk, lactose-free milk, or cultured buttermilk, all of which meet State and local standards for such milk. The milk must contain vitamins A and D at levels specified by FDA, and must be consistent with State and local standards.



# Food Buying Guide for Child Nutrition Programs

## Section 4 Milk

### Section 4—Milk

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>MILK, FLUID</b>					
<b>Milk, fluid</b> <i>Skim or Nonfat milk, Lowfat milk, Reduced fat milk, Whole milk, Lactose-reduced milk, Lactose-free milk, Buttermilk, Acidified milk (unflavored or flavored)</i>	Gallon	16.0	1/2 pint milk (1 cup milk)	6.3	
	Gallon	21.3	3/4 cup milk	4.7	
	Gallon	32.0	1/2 cup milk	3.2	
	Quart	4.0	1/2 pint milk (1 cup milk)	25.0	
	Quart	5.3	3/4 cup milk	18.9	
	Quart	8.0	1/2 cup milk	12.5	
	1/2 pint (8 fl oz)	1.0	1/2 pint milk	100.0	
	3/4 cup (6 fl oz)	1.0	3/4 cup milk	100.0	
	1/2 cup (4 fl oz)	1.0	1/2 cup milk		



## Section

# 5

Food Buying Guide for Child Nutrition Programs

# Other Foods



**5-1** Description of Other Foods

**5-2** Yield Data Table for Other Foods





# Other Foods

## Description of Other Foods

The foods in this section do not meet the requirement for any component in the meal patterns of the food based menu planning approaches. These items are included since they are frequently used as condiments and seasonings, to round out the meal, to improve acceptability, and to satisfy children's appetites. Because of the calories and nutrients these items contain they are counted in any nutrient analysis.

The calories supplied by these foods help to meet the energy needs of growing children. They also contribute varying amounts of protein, vitamins, and minerals essential to good nutrition. However, many of these foods are high in salt, sugar, or fat. For that reason, you may want to consider carefully how often and in what amount you use them.

The section does not include yields for all of the "other foods" you need in preparing meals. Flour and sugar, for example, are not included since they are never served alone. When purchase units for 100 servings of a food seem inappropriate, such as 100 cups of mustard, Column 5 is left blank.

Foods are designated as "USDA Commodity" or "Market pack" in Column 1. USDA-donated foods are not normally available on the market. Market pack foods are commercially available.

Refer to the Introduction Section for instructions on using Yield Data Tables.



# Food Buying Guide for Child Nutrition Programs

## Section 5 Other Foods

### Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
BUTTER, MARGARINE					
Butter	Pound	96.0	1 teaspoon butter	1.1	1 lb = 2 cups
Margarine	Pound	96.0	1 teaspoon margarine	1.1	1 lb = 2 cups
CATSUP (KETCHUP)					
Catsup (Ketchup) Tomato	No. 10 can (115 oz)	11.4	1 cup catsup	--	1 No. 10 can = about 11-1/2 cups
	No. 10 can (115 oz)	183.0	1 tablespoon catsup	0.60	
	20 oz bottle	32.0	1 tablespoon catsup	3.2	
	Pound	1.6	1 cup catsup	--	
CHILI SAUCE					
Chili Sauce	No. 10 can (113 oz)	12.9	1 cup sauce	--	
	19 oz bottle	2.2	1 cup sauce	--	
	Pound	1.8	1 cup sauce	--	
COCONUT					
Coconut, fresh In shell	Pound	2.7	1 cup shredded or grated coconut	--	1 lb in shell = about 0.48 lb (2-3/4 cups) shredded or grated ready-to-serve
Coconut, frozen Shredded	Pound	5.8	1 cup coconut	--	
Coconut, dried Flakes	Pound	5.1	1 cup coconut	--	
Coconut, dried Shredded	Pound	4.9	1 cup coconut	--	

## Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
CREAM					
Cream, fresh Light	1 quart	64.0	1 tablespoon cream	1.6	
Cream, fresh Heavy Whipping	1 quart	128.0	1 tablespoon whipped cream	0.79	Volume doubles when whipped
	1 pint	64.0	1 tablespoon whipped cream	1.6	
CREAM CHEESE					
Cream Cheese	Pound	15.6	2 tablespoons cheese	6.5	
EGG PRODUCT					
Egg Product, frozen Egg Whites	Pound	7.51	1/4 cup portion	13.4	1 lb frozen = about 1-5/8 cups thawed
Egg Product, frozen Egg Yolks	Pound	7.51	1/4 cup portion	13.4	1 lb frozen = about 1-5/8 cups thawed
FISH, SURIMI					
Fish, Surimi, frozen	Pound	10.8	1/4 cup thawed surimi	9.3	1 lb AP = 0.98 lb ready-to-use, thawed surimi (about 2-3/4 cups)
	Pound	15.7	1 oz thawed surimi	6.4	
	Pound	10.4	1-1/2 oz thawed surimi	9.7	
FROZEN DESSERTS					
Frozen Desserts Ice cream Ice milk Sherbet - Brick	1 quart	8.0	1 slice (1/2 cup)	12.5	
Frozen Desserts Ice cream Ice milk Sherbet Frozen yogurt Bulk Hardened or Soft serve	1 gal	32.0	1/2 cup portion	3.2	
	1 gal	64.0	1/4 cup portion	1.6	



## Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
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### HOMINY

Hominy, canned	No. 10 can (105 oz)	46.9	1/4 cup hominy	2.2	1 can = about 68 oz drained
	No. 2-1/2 can (29 oz)	12.9	1/4 cup hominy	7.8	1 can = about 19 oz drained
	No. 300 can (15-1/2 oz)	6.3	1/4 cup hominy	15.9	

### HONEY

Honey Strained	Pound	1.4	1 cup honey	--	
	Pound	22.3	1 tablespoon honey	4.5	

### JAMS, JELLIES and PRESERVES

Jams, Jellies and Preserves	1 gal	16.0	1 cup jam	--	
	1 gal	256.0	1 tablespoon jelly	0.40	
	1 quart	4.0	1 cup jam	--	
	1 quart	64.0	1 tablespoon jam	1.6	
	Pound	1.4	1 cup jam	--	
	Pound	22.6	1 tablespoon jam	4.5	

### KETCHUP (see CATSUP)

### MILK, DRIED

Milk, dried Whole Regular	Pound	14.2	1 cup reconstituted	--	4.5 oz (1 cup) dry plus 3-1/2 cups water = about 1 qt fluid whole milk
	Pound	3.5	1 cup dry milk		
Milk, dried Nonfat Instant	Pound	20.0	1 cup reconstituted milk	--	3.2 oz (1-1/3 cups) dry plus 3-3/4 cups water = about 1 qt fluid skim milk
	Pound	6.6	1 cup dry milk		



## Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
MILK, DRIED (continued)					
Milk, dried Non-instant USDA Commodity	Pound	20.0	1 cup reconstituted milk	--	3.2 oz (3/4 cup) dry plus 3-3/4 cups water = about 1 qt fluid skim milk
	Pound	3.7	1 cup dry milk		
MILK, EVAPORATED					
Milk, Evaporated, canned	No. 10 can (97 oz)	12.0	1 cup concentrated milk	--	To reconstitute, add 1 part evaporated milk with 1 part water
	13 fl oz can	1.6	1 cup concentrated milk	--	
MUSTARD					
Mustard Prepared	1 gal (about 142 oz)	16.0	1 cup mustard	--	
	1 gal (about 142 oz)	256.0	1 tablespoon mustard	0.40	
	1 quart (about 35 oz)	64.0	1 tablespoon mustard	1.6	
	Pound	1.8	1 cup mustard	--	
PICKLE RELISH					
Pickle Relish	1 gal (about 147 oz)	16.0	1 cup relish	--	1 gal = about 58 oz drained (about 8 cups)
	1 gal (about 147 oz)	256.0	1 tablespoon relish	0.40	
	1 quart (about 35 oz)	64.0	1 tablespoon relish	1.6	
	Pound	1.8	1 cup relish	--	
PORK					
Pork, fresh Pig Ears Lobe off Square cut	Pound	15.6	1 oz cooked pig's ear	6.5	1 lb AP = 0.98 lb cooked pig's ears
	Pound	10.4	1-1/2 oz cooked pig's ear	9.7	

## Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
<b>PORK (continued)</b>					
Pork, fresh <b>Pig Feet</b> Front (Like IMPS #420)	Pound	0.64	1 oz cooked pig's feet	156.3	1 lb AP = 0.04 lb cooked, skinned, boned meat
	Pound	0.42	1-1/2 oz cooked pig's feet	238.1	
Pork, fresh <b>Pig Feet</b> Hind (Like IMPS #420A)	Pound	0.32	1 oz cooked pig's feet	312.5	1 lb AP = 0.02 lb cooked, skinned, boned meat
	Pound	0.21	1-1/2 oz cooked pig's feet	476.2	
<b>PORK, MILD CURED</b>					
Pork, Mild Cured, chilled or frozen <b>Bacon</b> Slices Precooked	Pound	116.0	bacon slices per pound	0.87	1 lb AP = 0.86 lb cooked bacon (about 6 cups thawed, cooked and chopped)
Pork, Mild Cured, chilled or frozen <b>Bacon</b> Slices Raw	Pound	23.0	bacon slices per pound	4.4	1 lb AP = 0.38 lb cooked bacon (about 5 cups chopped)
Pork, Mild Cured, chilled or frozen <b>Ham Hocks</b> Cured and Smoked (Like IMPS #560)	Pound	0.32	1 oz cooked ham hocks	312.5	1 lb AP = 0.02 lb cooked meat from ham hocks
	Pound	0.21	1-1/2 oz cooked ham hocks	476.2	
<b>POPCORN, POPPED</b>					
<b>Popcorn, Popped</b>	48 - 1 oz individual packages	136.7	1/4 cup popped	0.74	1 oz pkg = about 2-1/4 cups
	Pound	68.3	1/2 cup popped	1.5	1 lb dry = about 34-1/4 cups
	Pound	45.5	3/4 cup popped	2.2	
	Pound	34.1	1 cup popped	3.0	
<b>POTATO CHIPS</b>					
<b>Potato Chips</b>	Pound	32.0	1/2 ounce chips (about 1/2 cup)	3.2	



## Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
POTATO STICKS					
Potato Sticks	Pound	32.0	1/2 ounce sticks (about 3/8 cup)	3.2	
PUDDING					
Pudding, canned Ready-to-serve Butterscotch, Chocolate, Vanilla, etc.	No. 10 can (112 oz)	47.9	1/4 cup pudding	2.1	1 can = about 12 cups ready-to-serve pudding
	No. 10 can (112 oz)	23.9	1/2 cup pudding	4.2	
SALAD DRESSINGS					
Salad Dressings French, Mayonnaise, Mayonnaise type	1 gal	16.0	1 cup dressing	--	
	1 gal	256.0	1 tablespoon dressing	0.40	
	1 quart	4.0	1 cup dressing	--	
	1 quart	64.0	1 tablespoon dressing	1.6	
SYRUPS					
Syrups Cane, Corn, Maple, Molasses, etc.	1 gal (about 183 oz)	16.0	1 cup syrup	--	
	1 gal (about 183 oz)	128.0	2 tablespoons syrup	0.79	
	1 quart	4.0	1 cup syrup	--	
	1 quart	32.0	2 tablespoons syrup	3.2	
VEGETABLES FOR SEASONING					
Vegetables for Seasoning, dried Celery Flakes	Ounce	1.3	1 cup dry flakes	--	For flavor, use 1 oz dry in place of 11.3 oz (2-2/3 cups) fresh chopped celery
	Pound	21.6	1 cup dry flakes	--	
Vegetables for Seasoning, dried Chives Freeze-dried Flakes	Ounce	2.8	1 cup flakes	--	For flavor, use 1 oz dry in place of 14.7 oz (8-2/3 cups) fresh chopped chives
	Pound	46.2	1 cup flakes	--	



## Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
<b>VEGETABLES FOR SEASONING (continued)</b>					
Vegetables for Seasoning, dried <b>Garlic</b> <i>Minced</i>	Ounce	2.6	1 tablespoon garlic	--	For flavor, use 1/4 tsp. dry in place of 2 cloves fresh minced garlic
	Pound	42.0	1 tablespoon garlic	--	
Vegetables for Seasoning, dried <b>Mixed vegetables</b> <i>Flakes</i>	Ounce	7.2	1 tablespoon flakes	--	
	Pound	7.8	1 cup flakes	--	
Vegetables for Seasoning, dried <b>Onions</b> <i>Chopped</i>	Ounce	6.0	1 tablespoon onions	--	For flavor, use 1 oz dry in place of about 9.1 oz (1-1/2 cup) fresh chopped onion
	Pound	5.2	1 cup onions	--	
Vegetables for Seasoning, dried <b>Onions</b> <i>Minced</i>	Ounce	6.0	1 tablespoon onions	--	
	Pound	4.5	1 cup onions	--	
Vegetables for Seasoning, dried <b>Onions</b> <i>Flakes</i>	Ounce	6.0	1 tablespoon flakes	--	
	Pound	7.6	1 cup flakes	--	
Vegetables for Seasoning, dried <b>Parsley</b> <i>Flakes</i>	Ounce	21.8	1 tablespoon flakes	--	For flavor, use 1 oz dry in place of about 2.9 oz (4 cups) fresh chopped parsley
	Pound	20.6	1 cup flakes	--	
Vegetables for Seasoning, dried <b>Pepper, Green or Red</b> <i>Flakes</i>	Ounce	11.3	1 tablespoon flakes	--	For flavor, use 1 oz dry in place of about 8.8 oz (1-2/3 cups) fresh chopped green pepper
	Pound	11.3	1 cup flakes	--	

## Section 5—Other Foods

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size	5 Purchase Units for 100 Servings	6 Additional Information
<b>YEAST</b>					
<b>Yeast</b> <i>Active Dry</i>	Pound	3.1	1 cup yeast	--	1 package (1/4 oz) = about 1 tablespoon
<b>Yeast</b> <i>Compressed</i>	Pound	25.2	1 cake yeast	--	1 cake (5/8 oz) = 1 package; (1/4 oz) active dry yeast





# Appendices

Appendix A: Recipe Analysis

Appendix B: Using Column 6 for Recipe Analysis

Appendix C: The USDA Child Nutrition Labeling Program

Appendix D: Food Purchasing: A Summary of First Choice  
and Choice Plus

Appendix E: Resources



**Appendix**

Food Buying Guide for Child Nutrition Programs

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**A**

**Recipe Analysis**



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## A

# Recipe Analysis

## How to Use the Recipe Analysis Worksheet

1. The recipe analysis worksheet (Figure 1, page A-7) has been added to the *Food Buying Guide* as a tool to help you calculate the contributions of ingredients towards the meat/meat alternates, vegetables/fruits, and/or grains/breads components of the meal pattern requirements. Determining the contributions your recipes (either USDA modified or locally produced) make towards the meal pattern requirements is an important step in ensuring the meals you serve are nutritious and meet Federal meal pattern requirements.
2. A calculator is most helpful when working with decimals. To determine the contribution a recipe's ingredients make toward meal pattern requirements, you must follow several steps. To illustrate the procedures, a worksheet has been completed for Spaghetti with Meat Sauce (Figure 2), Beef and Spaghetti Casserole (Figure 3), Beef Stew (Figure 4), and Cooked Oatmeal with Raisins and Crunchy Wheat Germ (Figure 5). The Spaghetti with Meat Sauce example uses large quantities of food typically used in a school setting (100 portions). The Beef and Spaghetti Casserole recipe uses a smaller quantity of food often seen in a day care setting (25 portions). The Beef Stew recipe is for 50 portions. The Cooked Oatmeal with Raisins and Crunchy Wheat Germ example (100 portions) uses the serving size required for the School Breakfast Program.
3. Keep in mind the rounding rule used when calculating the *credit* for meal pattern components. For *crediting purposes*, you need to round down to ensure that each portion served provides the minimum amount of credit you are claiming. This is different for the rounding rule used when calculating *how much food to purchase and/or prepare*. The rounding rule used for *purchasing and/or preparing food* is to round up to ensure enough food is purchased and/or prepared.



**Recipe Name.** Record the name of the recipe at the top of the page.

**Portions per Recipe.** Record the number of portions your recipe will yield.

**Column 1 - Ingredients.** List the recipe ingredients in Column 1 of the worksheet. It is not necessary to list ingredients that do not contribute towards meal pattern requirements. Record a description of each ingredient as precisely as possible. For example, record “ground beef, no more than 20 percent fat” or “spaghetti, dry” if these are the exact ingredients called for in the recipe. It is a good idea to group ingredients together that contribute to the same meal component: list all the meat/meat alternates ingredients first, list all the vegetables/fruits ingredients next, then list all the grains/breads ingredients.

**Column 2 – Quantity of Ingredient as Purchased.** Record the “as purchased” weight or volume measure of each ingredient in the recipe in Column 2 of the worksheet. Convert ounces to their decimal equivalent of a pound. (see “Decimal Weight Equivalents” Table 5 on page I-36) **The quantity specified in Column 2 of the worksheet must be in the same units as the purchase unit which will be recorded in Column 3.** For example, if 2 No. 10 cans of peas are recorded in Column 2, make sure the purchase unit in Column 3 is a No. 10 can also.

### Special Considerations for Column 2:

- When the recipe calls for the prepared/ready-to-use form of an ingredient, and the *Food Buying Guide* does not provide yield data for that form, you will have to convert the weight of that ingredient to its unprepared weight in order to determine how many servings are provided by that ingredient.

If the recipe calls for food in a certain form and if yield data for the food in the same form is available in this guide as described in Column 1, conversion of the weight is not necessary. For example, if your recipe calls for onions, fresh, peeled, and diced, no conversion is necessary since the *Food Buying Guide* provides yield data for onions, fresh, diced, ready-to-use as described in Column 1 (see page 2-51).

However, if the form of the food used in the recipe is not listed in Column 1 of the *Food Buying Guide*, conversion of the ingredient weight is necessary. For example, if the recipe calls for eggplant, raw, pared, cubed, a conversion of the ingredient weight is needed since the *Food Buying Guide* only provides data for whole eggplant as described in Column 1. In other words, in order to determine the number of 1/4-cup servings provided by the amount of raw, pared, cubed eggplant in the recipe, you must determine the weight of the whole unpared eggplant (the “as purchased” weight) so that you can then use the yield data in this guide.

- To convert the weight from the prepared/ready-to-serve form to the as-purchased weight, divide the weight of the prepared/ready-to-serve ingredient given in the recipe by the corresponding yield factor provided in Column 6 (Additional Yield Information) of the *Food Buying Guide*.



The resulting answer will be entered in Column 2 of the worksheet. Do not round up.

For example, a recipe calls for 10 pounds of raw, pared, cubed eggplant, but the *Food Buying Guide* only provides yield data for whole eggplant. In this case, the weight of the raw pared, cubed eggplant in the recipe needs to be converted to the weight of the whole eggplant in order to record in Column 2, the amount of whole eggplant that will provide the amount of pared, cubed eggplant required for the recipe. To convert the weight of raw, pared, cubed eggplant to the weight of the fresh whole eggplant, divide 10 pounds of raw, pared cubed eggplant by the yield factor in Column 6 (which is 0.81). The calculation is as follows:  $10 \div 0.81 = 12.34$ . You would record 12.34 pounds of fresh whole eggplant in Column 2 of the Recipe Analysis Worksheet, and you would then record that whole eggplant yields 6.7 1/4-cup servings of cooked vegetable cubes per pound in Column 4 of the Recipe Analysis Worksheet.

For additional examples using Column 6 yield data, see calculation examples from Method 3 on pages I-63 through I-65. You may also refer to Appendix B for another example of determining yields of prepared/ready-to-serve ingredients.

**Column 3 – Purchase Unit.** Record the purchase unit in which you buy the ingredient such as pound, No. 10 can, dozen, etc., in Column 3 of the worksheet. Keep in mind that it is important to use the same purchase unit of the ingredient as specified under “Purchase Unit,” Column 2 of the *Food Buying Guide*.

**Column 4 – Servings per Purchase Unit.** Record the number of servings per purchase unit of the ingredient in Column 4 of the worksheet. This information will be found in Column 3 of the *Food Buying Guide*. The number of servings per purchase unit varies for different preparation methods or forms of the ingredient as served. Therefore, you should pay particular attention to the description of the food as served when selecting the number of servings per purchase unit to use in the calculations. The description of the form of the food should be most nearly like that of the food *after* preparation of the recipe is complete and as it is served. For example, if a recipe specifies raw, sliced carrots as an ingredient and the carrots are cooked in the process of preparing the recipe, use the information in Column 3 of the *Food Buying Guide* for cooked sliced carrots.

#### **Special Considerations for Column 4:**

For a grains/breads ingredient you will need to be aware of the two different ways the serving data are provided in the yield tables:

1) **By number of grains/breads servings**

Most grains/breads items, such as crackers, taco shells, and bread, provide yield data by number of grains/breads servings, for example, 1/2 serving, 1 serving, or 1-1/2 servings. If the ingredient you are using provides the yield data by number of servings, *the purchase unit you need to record in Column 4 of the Recipe Analysis Worksheet must be the yield data for 1 serving of grains/breads.*

2) **By volume**

Items categorized as cooked cereal grains, pasta, rice, and wild rice are listed by portions of a cup, for example, 1/4 cup, 1/2 cup, or 3/4 cup. If the ingredient you are using provides the yield data by fractions of a cup, you need to:

- A) *Know the total number of servings needed using one specific volume measurement.* For example, if you need 50 1/4-cup servings plus 50 1/2-cup servings you will need either a total of 150 1/4-cup servings or 75 1/2-cup servings;
- B) *Choose one volume measurement and use the corresponding yield data for that specific volume measurement.* For example, if the ingredient is barley and you have calculated the number of 1/2 cup servings needed for all servings combined, "pound" will be recorded in Column 3 and 21.2 is recorded in Column 4 since this yield data corresponds to the 1/2 cup serving of cooked barley;
- C) *Understand that the servings per portion will be in units of the specific volume measurement that you have chosen in step B.* As in the example above for barley, the portion chosen is 1/2 cup, the yield data needed to calculate the number of servings corresponds to 1/2 cup, therefore, the answer will be in 1/2 cup servings of grains/breads.

*Note: You will need to know what volume portion will provide one grains/breads serving for your program. According to Exhibit A (see pages 3-15 & 3-16), for cooked cereal grains, pasta, rice and wild rice, one grains/breads serving = 1/2 cup cooked. However, there is an exception: For the School Breakfast Program for Grades K-12, one grains/breads serving = 3/4 cup or 1 ounce cereal. This means 3/4 cup or 1 ounce (whichever is less) of cold dry cereal or 3/4 cup cooked cereal is equivalent to one grains/breads serving.*

**Column 5 – Calculation of the meat/meat alternates contribution per serving.**  
Follow these steps:

- 1. For each meat or meat alternate ingredient in the recipe, multiply the number recorded in Column 2 by the number recorded in Column 4. (Column 2 X Column 4 = Column 5.) Record the answer to two decimal places.



*Note: When whole eggs are an ingredient in a recipe, the number entered in Column 4 of the worksheet, servings per purchase unit (obtained from Column 3 of the Food Buying Guide), should be 24 one-ounce servings per dozen large eggs. This is necessary so that the Column 5 entry will be in units of one-ounce servings.*

2. If more than one meat or meat alternate ingredient is used in the recipe, add all the numbers recorded in Column 5 to determine the total ounces of meat or meat alternate ingredients in the recipe. Then record the sum in the space provided for the total.
3. Divide the total of Column 5 by the number of portions the recipe yields to determine the contribution per portion.
4. Round down to the nearest 1/4 ounce (0.25 oz).

*Note: The contribution that meat or meat alternate ingredients make toward meal pattern requirements is expressed as ounces of "equivalent meat/meat alternate." The minimum equivalent meat or meat alternate provided by a portion of the recipe must be 0.25 ounce to be credited as a meat/meat alternate contribution.*

**Column 6** – Calculation of the **vegetables/fruits** contribution per serving.  
Follow these steps:

1. For each vegetable or fruit recipe ingredient on the worksheet, multiply the number recorded in Column 2 by the number recorded in Column 4. (Column 2 X Column 4 = Column 6) Record the answer to two decimal places.
2. If more than one vegetable or fruit ingredient is used in the recipe, add all of the numbers recorded in Column 6 to determine the total number of 1/4 cup vegetable/fruit servings in the recipe. Then, record the sum in the space provided for the total.
3. Divide the total number of 1/4 cup servings by 4 to convert to cups.
4. Divide the total number of cups by the number of portions the recipe yields to determine the contribution per portion.
5. Record the answer to two decimal places and convert decimal places to the nearest portion of a cup by using table 7 on page I-37. Vegetable/fruit servings are always rounded down to the nearest 1/8 cup.

*Note: A recipe must provide a minimum of 1/8 cup vegetable or fruit per serving to count toward the vegetable/fruit component of the meal pattern requirements.*



**Column 7** – Calculation of the **grains/breads** contribution per serving. Follow these steps when using an item having yield data in the FBG:<sup>1</sup>

1. For each grains/breads recipe ingredient listed on the worksheet, multiply the number recorded in Column 2 by the number recorded in Column 4. (Column 2 X Column 4 = Column 7.) Record the answer to two decimal places.
2. If more than one grains/breads ingredient is used in the recipe, add all the numbers recorded in Column 7 to determine the total number of grains/breads servings in the recipe. Record the sum in the space provided for the total.
3. Divide the total figure in Column 7 by the number of portions the recipe yields to determine the contribution per portion.
4. Round down to the nearest 1/4 grains/breads serving.

**Totals:** The totals row is used to record the sum or total for the numbers recorded in each component column. For example, all the numbers recorded in Column 5, meat/meat alternates, should be added together and the sum will be recorded in the “totals” space of Column 5. Add the numbers recorded in Columns 6 and 7 the same way and the *sums* or *totals* will be recorded in the appropriate column in the space provided for the total.

**Portions per Recipe:** Record the total number of portions a recipe provides or yields. This number will be the same for each of the component columns. For example, if your entire recipe provides 100 portions, 100 will be entered in this row for Columns 5, 6 and 7.

**Calculations:** Note the numbers you will use to calculate or determine the contribution of each component.

*Note: Always **round down** after determining the **creditable amount** of a meal pattern component. This is to ensure that each portion served will provide the minimum contribution towards meal pattern requirements. When rounding down, sometimes there may be a little bit more credit than what is claimed. It is necessary to round down so that there will never be less credit than what is claimed. (Keep in mind, when calculating how much food to purchase you would not round down, but would round up.)*

**Each Portion Contributes:** This row provides a space to record the final rounded down, calculated answers of how one portion will credit towards each meal pattern component.

<sup>1</sup>For either *locally produced grains/breads items* or for *items not having yield data in the FBG* that only contribute towards the grains/breads component, see section 3 Grains/Breads, pages 3-8 through 3-16 for determining serving size for a creditable item instead of using this worksheet.

## FIGURE 1

Portions per Recipe: \_\_\_\_\_

Ingredients (1)	Quantity of Ingredient As Purchased (number of purchase units) (2)	Purchase Unit (3)	Servings per Purchase Unit in Food Buying Guide (4)	Meat/ Meat Alternates (ounces) (5) = (2) X (4)	Vegetables/ Fruits (1/4 cup) (6) = (2) X (4)	Grains/ Breads (servings) (7) = (2) X (4)
<b>Notes:</b> • oz to lb conversion chart is on page I-36 • remember to convert ready-to-use products to their “as purchased” amount (see examples in Method 1, pages I-51 through I-59) • the values for Columns 5, 6, & 7 are found by multiplying the value in Column 2 by the value in Column 4. • remember to divide the total 1/4 cup servings of vegetables/fruits by 4 to get the cups of fruit. • grains/breads in portions of a cup: convert all needed servings into the same portion of a cup and use the corresponding yield data for that same size • grains/breads in numbers of servings: use the yield data provided for 1 grains/breads serving			<b>Totals</b>		(1/4 c)	
			<b>Portions per Recipe</b>			
			<b>Calculations</b>	total ÷ by # portions	total ÷ by 4 (to get units in cups), then ÷ by # portions	total ÷ by # portions
<b>This Recipe provides _____ portions.</b>			<b>Each Portion Contributes</b>	<b>oz</b>  meat/meat alternates	<b>cup(s)</b>  vegetables/fruits	<b>serving(s)</b> grains/breads

## Completed Recipe Analysis Worksheet—School Lunch (100 Portions)

**FIGURE 2**

Recipe Name: Spaghetti with Meat Sauce Portions per Recipe: 100

(Modified USDA Recipe #D-35)

Ingredients (1)	Quantity of Ingredient As Purchased (number of purchase units) (2)	Purchase Unit (3)	Servings per Purchase Unit in Food Buying Guide (4)	Meat/ Meat Alternates (ounces) (5) = (2) X (4)	Vegetables/ Fruits (1/4 cup) (6) = (2) X (4)	Grains/ Breads (servings) (7) = (2) X (4)
Ground Beef, (no more than 16% fat)*	14.37 lb (14 lb 6 oz)	Pound	11.8 (for 1 oz serv)	169.56		
Cheddar Cheese,* shredded	2 lb	Pound	16.0 (for 1 oz serv)	32.00		
Onions, fresh, as purchased (to provide 6 lb chopped)	6.88 lb (6 lb 14 oz)	Pound	7.90 (for 1/4 c serv)		54.35	
Tomato Paste	3.50 lb (3 lb 8 oz)	Pound	27.6 (for 1 tbsp)		96.60	
Tomatoes, canned, diced With liquid	8.50 lb (8 lb 8 oz)	Pound	7.71 (for 1/4 c serv)		65.53	
Spaghetti, regular, dry, broken <sup>2</sup>	9.50 lb (6 lb 8 oz)	Pound	10.6 (for 1/2 c serv)			100.70
* the use of 16% fat ground beef and the addition of cheese are modifications to the original USDA recipe # D-35.						
Notes: • oz to lb conversion chart is on page I-36 • remember to convert ready-to-use products to their "as purchased" amount (see examples in Method 1, pages I-51 through I-59) • the values for Columns 5, 6, & 7 are found by multiplying the value in Column 2 by the value in Column 4. • remember to divide the total 1/4 cup servings of vegetables/fruits by 4 to get the cups of fruit. • grains/breads in portions of a cup: convert all needed servings into the same portion of a cup and use the corresponding yield data for that same size • grains/breads in numbers of servings: use the yield data provided for 1 grains/breads serving			<b>Totals</b>	201.56	216.48 (1/4c)	100.70
			<b>Portions per Recipe</b>	100	100	100
			<b>Calculations</b>	201.56 ÷ 100 = 2.01 rounds down to 2.00 oz	216.48 ÷ 4 = 54.12 cups 54.12 ÷ 100 = 0.54 cup rounds down to 0.50 (1/2) cup	100.70 ÷ 100 = 1.00 serving <sup>2</sup>  (in this case 1 G/B serving = 1/2 cup)
<b>This Recipe provides 100 portions.</b>			<b>Each Portion Contributes</b>	<b>2.00 oz</b> meat/meat alternates	<b>1/2 cup</b> vegetables/ fruits	<b>1 serving</b> grains/ breads

<sup>2</sup>According to Exhibit A (see pages 3-15 & 3-16), 1/2 cup of cooked pasta is equivalent to 1(one) grains/breads servings. The yield data for the pasta used in this example corresponds to 1/2 cup servings, therefore the answer is in units of 1/2 cup servings (1 grains/breads serving).



# Completed Recipe Analysis Worksheet—Child Care (25 Portions)

**FIGURE 3**

Recipe Name: Beef and Spaghetti Casserole Portions per Recipe: 25

(Modified USDA Recipe #D-22)

Ingredients (1)	Quantity of Ingredient As Purchased (number of purchase units) (2)	Purchase Unit (3)	Servings per Purchase Unit in Food Buying Guide (4)	Meat/ Meat Alternates (ounces) (5) = (2) X (4)	Vegetables/ Fruits (1/4 cup) (6) = (2) X (4)	Grains/ Breads (servings) (7) = (2) X (4)
Ground beef, (no more than 20% fat)*	3.25 lb (3 lb 4 oz)	Pound	11.8 (for 1 oz serv)	38.35		
Onions, fresh, as purchased (to provide 0.34 lb chopped)	0.43 lb (7 oz)	Pound	7.90 (for 1/4 c serv)		3.39	
Tomato paste	1.12 lb (1 lb 2 oz)	Pound	27.6 (for 1 Tbsp)		30.91	
Spaghetti, dry <sup>3</sup> broken in quarters	1.25 lb (1 lb 4 oz)	Pound	10.6 (for 1/4 c serv)			13.25
* the use of 20% fat ground beef is a modification to the original USDA recipe # D-22.						
<b>Notes:</b> • oz to lb conversion chart is on page I-36 • remember to convert ready-to-use products to their “as purchased” amount (see examples in Method 1, pages I-51 through I-59) • the values for Columns 5, 6, & 7 are found by multiplying the value in Column 2 by the value in Column 4. • remember to divide the total 1/4 cup servings of vegetables/fruits by 4 to get the cups of fruit. • grains/breads in portions of a cup: convert all needed servings into the same portion of a cup and use the corresponding yield data for that same size • grains/breads in numbers of servings: use the yield data provided for 1 grains/breads serving			<b>Totals</b>	38.35	34.30 (1/4 c)	13.25
			<b>Portions per Recipe</b>	25	25	25
			<b>Calculations</b>	38.35 ÷ 25 = 1.53 rounds down to 1.50 oz	34.30 ÷ 4 = 8.57 cups 8.57 ÷ 25 = 0.34 cup rounds down to 0.25 (or 1/4) cup	13.25 ÷ 25 = 0.53 rounds down to 0.50 (1/2) serving <sup>3</sup>  (in this case 1/2 G/B serving = 1/4 cup)
<b>This Recipe provides 25 portions.</b>			<b>Each Portion Contributes</b>	<b>1.50 oz</b> meat/meat alternates	<b>1/4 cup</b> vegetables/ fruits	<b>1/2 serving</b> grains/ breads

<sup>3</sup>According to Exhibit A (see pages 3-15 & 3-16), 1/2 cup of cooked pasta is equivalent to 1(one) grains/breads serving. The yield data for the pasta used in this example corresponds to 1/2 cup servings, therefore, the answer is in units of 1/2 cup servings (1 grains/breads serving). Since one grains/breads serving is 1/2 cup, half of that is equal to 1/4 cup of cooked pasta.

## Completed Recipe Analysis Worksheet

FIGURE 4

Recipe Name: Beef Stew

Portions per Recipe: 50

(Modified USDA Recipe #D-14)

Ingredients (1)	Quantity of Ingredient As Purchased (number of purchase units) (2)	Purchase Unit (3)	Servings per Purchase Unit in <i>Food Buying Guide</i> (4)	Meat/ Meat Alternates (ounces) (5) = (2) X (4)	Vegetables/ Fruits (1/4 cup) (6) = (2) X (4)	Grains/ Breads (servings) (7) = (2) X (4)
Boneless Beef for stewing, 1-inch cubes	11.63 lb (11 lb 10.1 oz)	Pound	9.76 (for 1 oz serv)	113.50		
Onions, whole, fresh (to provide 1 lb quartered, peeled)	1.16 lb (1 lb 2.6 oz)	Pound	7.90 (for 1/4 c serv)		9.16	
Carrots, sliced, canned (to provide 2 lb 11 oz drained)	0.66 (2/3) of a No. 10 can	No. 10 can (105 oz)	37.2 (for 1/4 c serv)		24.55	
Potatoes, whole, small, canned (to provide 3 lb 6 oz drained)	0.75 (3/4) of a No. 10 can	No. 10 can (102 oz)	43.7 (for 1/4 c serv)		32.77	
Peas, green, frozen	4 lb	Pound	9.59 (for 1/4 c serv)		38.36	
<i>* The change to frozen peas from canned peas is a modifi- cation to the original USDA recipe # D-14.</i>						
<b>Notes:</b> • oz to lb conversion chart is on page I-36 • remember to convert ready-to-use products to their “as purchased” amount (see examples in Method 1, pages I-51 through I-59) • the values for Columns 5, 6, & 7 are found by multiplying the value in Column 2 by the value in Column 4. • remember to divide the total 1/4 cup servings of vegetables/fruits by 4 to get the cups of fruit. • grains/breads in portions of a cup: convert all needed servings into the same portion of a cup and use the corresponding yield data for that same size • grains/breads in numbers of servings: use the yield data provided for 1 grains/breads serving		<b>Totals</b>		113.50	104.84 (1/4 c)	0.0
		<b>Portions per Recipe</b>		50	50	50
		<b>Calculations</b>		113.50 ÷ 50 = 2.27 oz rounds down to 2.25 oz	104.84 ÷ 4 = 26.21; 26.21 ÷ 50 = 0.52 rounds down to 0.50 (1/2)	
<b><i>This Recipe provides 50 portions.</i></b>		<b><i>Each Portion Contributes</i></b>		<b>2.25 oz</b> meat/meat alternates	<b>1/2 cup</b> vegetables/ fruits	<b>0.00</b> grains/ breads

# Completed Recipe Analysis Worksheet—School Breakfast (100 Portions)

**FIGURE 5**

Recipe Name: Cooked Oatmeal with Raisins and Crunchy Wheat Germ Portions per Recipe: 100

Ingredients (1)	Quantity of Ingredient As Purchased (number of purchase units) (2)	Purchase Unit (3)	Servings per Purchase Unit in <i>Food Buying Guide</i> (4)	Meat/ Meat Alternates (ounces) (5) = (2) X (4)	Vegetables/ Fruits (1/4 cup) (6) = (2) X (4)	Grains/ Breads (servings) (7) = (2) X (4)
Regular rolled oats (dry) <sup>4</sup> (includes USDA Commodity)	4.50 lb (4 lb 8 oz)	Pound	15.1 (for 3/4 c serv)			67.95
Wheat germ, dry	2.50 lb (2 lb 8 oz)	Pound	13.0 (for 1 oz serv)			32.50
Raisins	4.75 lb (4 lb 12 oz)	Pound	21.4 (for 1/4 c serv)		101.65	
<b>Notes:</b> • oz to lb conversion chart is on page I-36 • remember to convert ready-to-use products to their “as purchased” amount (see examples in Method 1, pages I-51 through I-59) • the values for Columns 5, 6, & 7 are found by multiplying the value in Column 2 by the value in Column 4. • remember to divide the total 1/4 cup servings of vegetables/fruits by 4 to get the cups of fruit. • grains/breads in portions of a cup: convert all needed servings into the same portion of a cup and use the corresponding yield data for that same size • grains/breads in numbers of servings: use the yield data provided for 1 grains/breads serving			<b>Totals</b>	0.00	101.65 (1/4 c)	100.45
			<b>Portions per Recipe</b>	100	100	100
			<b>Calculations</b>		101.65 ÷ 4 = 25.41; 25.41 ÷ 100 = 0.25 = 1/4 cup	100.45 ÷ 100 = 1.00 <sup>4</sup>  (in this case 1 G/B serving = 3/4 cup cooked and 1 oz dry cereal)
			<b>This Recipe provides 100 portions.</b>			<b>Each Portion Contributes</b>

<sup>4</sup>For the School Breakfast Program (SBP) Grades K-12, 3/4 cup of cooked cereal grains and 1 oz dry wheat germ (a ready-to-eat cereal) are each equivalent to 1 (one) grains/breads serving. In this example, the yield data for the oats served cooked corresponds to a 3/4 cup serving, and the yield data for dry wheat germ corresponds to a 1 ounce serving. Therefore, the answer is in 1(one) grains/breads serving according to SBP requirements. For programs other than the SBP, 1 grains/bread serving for Group H items is 1/2 cup cooked as stated in Exhibit A (see pages 3-15 & 3-16).





**B**

**Using Column 6  
for Recipe Analysis**





## B

# Using Column 6 for Recipe Analysis

*Determining the number of servings, for crediting purposes, obtained from a particular food using Column 6, "Additional Yield Information."*

## Recipe Analysis for Apple Crisp

A recipe for 100 servings of apple crisp calls for **12.5 pounds of fresh, sliced, cored, peeled apples**. *You want to know the number of 1/4 cup servings of fruit (for crediting purposes) you will obtain from one portion of the apple crisp.*



**STEP 1: Calculate the number of pounds of apples as purchased (whole) you will need to obtain 12.5 pounds raw, sliced, pared ready-to-cook apples:**

*For Apples, fresh, 125 count (AP) served as raw, pared fruit (see page 2-7), Column 6 reads:*

1 lb AP = 0.78 lb ready-to-cook or -serve raw, cored, peeled

*You calculate as follows:*

12.5 lb divided by 0.78 lb = 16.02 lb (do not round up)

**STEP 2: Multiply this calculated quantity by servings per purchase unit (from Column 3) for the form of the food as served (from Column 4).**

*Since you are serving the apples cooked, you look in Column 4 for this form of the food. The appropriate line in Column 4 reads:*

1/4 cup cooked, pared, unsweetened fruit

*You look in Column 3 to find the appropriate number of servings per purchase unit.*

Column 3 reads: 6.80

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*Multiply the number of servings per purchase unit by the number of pounds calculated in STEP 1:*

$$6.80 \text{ multiplied by } 16.02 = 108.93$$

*This tells you the total number of 1/4 cup servings of fruit (for crediting purposes) you will obtain from all of the apples used in the recipe.*

**STEP 3: Divide the total number of 1/4 cup servings obtained in STEP 2 by the number of portions the recipe yields and round down to get the creditable vegetable/fruit servings in one portion.**

$$108.93 \text{ divided by } 100 = 1.08$$

rounded down to 1.0 (one)-1/4 cup serving of the vegetable/fruit component per portion.

*Note: at STEP 3, the answer will be in units of 1/4 cup. Therefore,*

*an answer of:     2.00 = 1/2 cup*

*1.50 = 3/8 cup*

*1.00 = 1/4 cup*

*0.50 = 1/8 cup*

**ANSWER:** *For crediting purposes, each portion of apple crisp will provide a 1/4 cup serving of the vegetable/fruit component for the meal pattern requirements.*

*Note: Always **round down** after determining the **creditable amount** of a meal pattern component. This is to ensure that each portion served will provide the minimum contribution towards meal pattern requirements. When rounding down, sometimes there may be a little bit more credit than what is claimed. It is necessary to round down so that there will never be less credit than what is claimed. (Keep in mind, when calculating how much food to purchase you would not round down, but would round up.)*

**C**

**The USDA Child Nutrition  
Labeling Program**





**C**

# The USDA Child Nutrition Labeling Program

**Common Questions****What is the Child Nutrition Labeling Program?**

The Child Nutrition (CN) Labeling Program is a voluntary Federal labeling program for the Child Nutrition Programs.

**Does the CN Labeling Program apply to all food-based menu planning approaches?**

The CN Labeling Program applies to both Traditional and Enhanced Food-Based Menu Planning approaches for schools. It also applies to meal patterns in the Child and Adult Care Food Program and Summer Food Service Program. This is because a CN label on a food product shows how the product contributes toward food-based meal pattern requirements.

CN Labeling does not apply to Nutrient Standard Menu Planning (NSMP) or Assisted NSMP because these menu planning approaches do not use meal patterns as planning tools. However, CN labeled products may be purchased for meals planned with NSMP or Assisted NSMP because they help define a product.

**Who runs the program?**

The CN Labeling Program is run by the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) in cooperation with the following agencies:

- Food Safety and Inspection Service (FSIS);
- Agriculture Marketing Service (AMS); and
- National Marine Fisheries Service (NMFS).

The program is operated by FNS. Commercial food processing firms submit CN label applications to FNS for approval.

**How does the program work?**

The program requires an evaluation of a product's formulation by FNS to determine its contribution toward meal pattern requirements. Once approved, it allows manufacturers to state this contribution on their labels. The program provides Child Nutrition program operators a warranty against audit claims for CN labeled products if the product is used according to the manufacturers directions as printed on the approved CN label.

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### What products are eligible for CN labels?

- Main dish products which contribute to the Meat/Meat Alternates component of the meal pattern requirements. Examples include beef patties, cheese or meat pizzas, meat or cheese and bean burritos, egg rolls, and breaded fish portions.
- Juice and juice drink products containing at least 50 percent full-strength juice by volume. This includes such products as grape drink, fruit punch, frozen juice drink bars, and sherbet.

To carry CN labels, eligible products must:

- have the contribution of the food component(s) determined using yields in the USDA's *Food Buying Guide for Child Nutrition Programs*;
- have the product formulation and CN label approved by FNS; and
- be produced under inspection.

### Are manufacturers required to CN label products?

There is no Federal requirement that anyone manufacture or purchase CN labeled products. Purchasing decisions are left to the local level. If a CN labeled product is desired, this must be clearly stated in purchasing specifications.

### What are the advantages of using CN labeled products?

- A CN label statement clearly identifies the contribution of a product toward the meal pattern requirements, and it protects you from exaggerated claims about a product.
- A CN label provides a warranty against audit claims if the CN labeled product is used according to the manufacturer's directions.
- A CN label simplifies cost comparison of similar products.

### Do CN labeled products cost more than non-CN labeled products?

CN labeled products may cost more. Special labeling requirements, inspection costs, and extra staff costs to monitor quality control may be contributing factors in CN labeled products costing more than a similar non-CN labeled product. Keep in mind that cost comparison between two meat products should be based on the cost per serving of the specified *contribution* to the meal pattern requirements, not on the *product* cost per ounce or pound.

### How do I identify a CN labeled product?

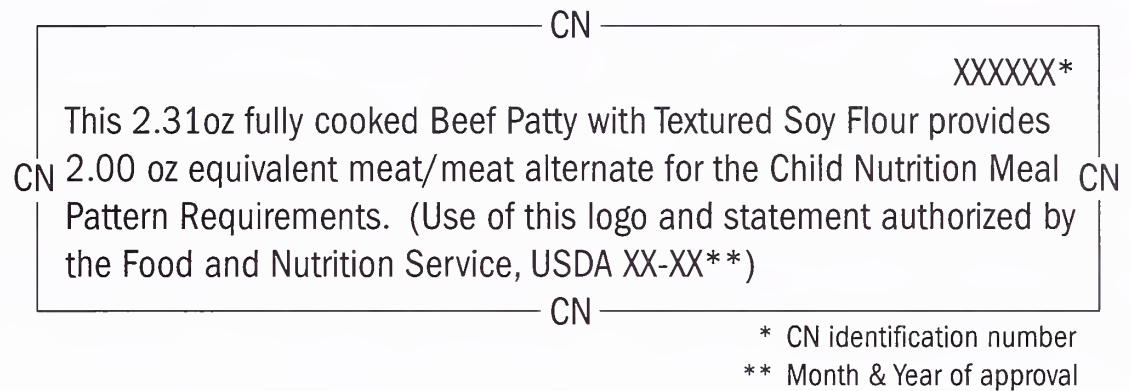
A CN labeled product will always contain the following:

- the CN logo, which is a distinct border;
- the meal pattern contribution statement;



- a unique 6-digit product identification number (assigned by FNS) appearing in the upper right hand corner of the CN logo;
- the USDA/FNS authorization statement;
- the month and year of final FNS approval appearing at the end of the authorization statement;
- plus the remaining required label features: product name, inspection legend, ingredient statement, signature/address line, and net weight.

*A sample CN logo:*



*Note: The X's in the sample CN logo are only used to demonstrate the placement of the CN identification number and the final date. If you receive a CN labeled product containing all X's (or other non-number symbols) or all zeroes as the CN identification number, that label is not a valid CN label. If a CN label is not valid, FNS cannot provide a warranty for its use towards meal pattern requirements.*

**Are CN labeled products more nutritious than similar non-CN labeled products?**

No. A CN label does not indicate that the CN product is healthier or more nutritious than a similar non-CN labeled product. The CN credit statement declares the *quantities* of the creditable food item(s) in a processed food. The quantity of creditable food is used to meet the meal pattern requirements.

**Are CN labeled products of a higher quality than non-CN labeled products?**

No. While a CN labeled product is guaranteed to contain a certain quantity of food, it does not indicate that the quality of the food is any different than a non-CN labeled food. Neither does it mean the foods are safer to eat or free of pathogens or allergens.

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**For more information:**

For additional information about the CN Labeling Program, contact:

U.S. Department of Agriculture  
Food and Nutrition Service  
Child Nutrition Division  
3101 Park Center Drive – Room 632  
Alexandria, Virginia 22302  
Phone: (703) 305-2609

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**Food Items for  
Further  
Processing**

The yield data for foods in sections 1 – 5 of this guide represent foods that are commonly purchased at the program level. Items presented in this section are intended to be used by industry for further processing. The yield information provided here may also be used in the CN Labeling Program. This information is being provided so that Child Nutrition Program operators are aware of the yields for food items that industry uses for determining the credit of foods for meal pattern requirements. Even though a program may never purchase these items directly, it is important for all programs to have information that will allow them to verify that the processed food items they purchase are credited in a manner consistent with program requirements.

# Food Buying Guide for Child Nutrition Programs

## Appendix C

### Food Items for Further Processing

#### Food Items for Further Processing

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>BEEF, LEAN FINELY TEXTURED (LFTB)</b>					
Beef, fresh or frozen <b>Lean finely textured beef (LFTB)</b>	Pound	12.9	1 oz cooked lean meat	7.8	1 lb AP = 0.81 lb cooked lean meat
<i>Raw</i>	Pound	8.64	1-1/2 oz cooked lean meat	11.6	
<b>CHICKEN, MECHANICALLY or HAND SEPARATED</b>					
Chicken, fresh or frozen <b>Mechanically or Hand separated</b>	Pound	11.2	1 oz cooked poultry	9.0	1 lb AP = 0.70 lb cooked poultry
<i>Raw</i>	Pound	7.46	1-1/2 oz cooked poultry	13.5	
<b>PORK, LEAN FINELY TEXTURED (LFTP)</b>					
Pork, fresh or frozen <b>Lean finely textured pork (LFTP)</b>	Pound	12.9	1 oz cooked lean meat	7.8	1 lb AP = 0.81 lb cooked lean meat
<i>Raw</i>	Pound	8.64	1-1/2 oz cooked lean meat	11.6	
<b>SEAFOOD</b>					
Seafood, frozen <b>Fish fillet block</b>	Pound	12.4	1 oz cooked fish	8.1	1 lb AP = 0.78 lb cooked fish
<i>Raw</i>	Pound	8.32	1-1/2 oz cooked fish	12.1	
Seafood, frozen <b>Minced fish block</b>	Pound	12.0	1 oz cooked fish	8.4	1 lb AP = 0.75 lb cooked minced fish
<i>Raw</i>	Pound	8.00	1-1/2 oz cooked fish	12.5	
Seafood, frozen <b>Shrimp</b>	Pound	9.28	1 oz cooked fish	10.8	1 lb AP = 0.58 lb cooked cooked minced shrimp
<i>Minced</i>					
<i>Raw</i>	Pound	6.18	1-1/2 oz cooked fish	16.2	
Seafood, frozen <b>Squid meat block</b>	Pound	11.6	1 oz cooked fish	8.7	1 lb AP = 0.73 lb cooked squid meat
<i>Rings and Tentacles</i>					
<i>Raw</i>	Pound	7.78	1-1/2 oz cooked fish	12.9	



## Food Items for Further Processing

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
<b>TOMATO PASTE<sup>1</sup></b>					
Tomato Paste, canned <sup>1</sup> <b>Medium</b> 28% or more, but less than 32% Natural Tomato Soluble Solids (NTSS)	Pound	32.2	1 tablespoon paste (1/4 cup vegetable)	3.2	
Tomato Paste, canned <sup>1</sup> <b>Heavy</b> 32% or more, but less than 39.3% Natural Tomato Soluble Solids (NTSS)	Pound	36.8	1 tablespoon paste (1/4 cup vegetable)	2.8	
Tomato Paste, canned <sup>1</sup> <b>Extra Heavy</b> 39.3% or more Natural Tomato Soluble Solids (NTSS)	Pound	45.1	1 tablespoon paste (1/4 cup vegetable)	2.3	
<b>TURKEY, MECHANICALLY or HAND SEPARATED</b>					
Turkey, fresh or frozen <b>Mechanically or Hand separated</b>	Pound	11.2	1 oz cooked poultry	9.0	1 lb AP = 0.70 lb cooked poultry
Raw	Pound	7.46	1-1/2 oz cooked poultry	13.5	

<sup>1</sup>If the percentage of Natural Tomato Soluble Solids (NTSS) is not specified for the brand of tomato paste you are using – use the yield data for tomato paste light, 24-28 percent NTSS found on page 2-83.

**D**

**Food Purchasing:  
A Summary of First Choice  
and Choice Plus**





## D

## The Purchasing Process: A Summary of *First Choice* and *Choice Plus*

The *Food Buying Guide* (FBG) for *Child Nutrition Programs* is designed to help you determine how much food to buy and prepare to ensure that the meals you serve under the Child Nutrition Programs (CNP) meet program requirements. However, in addition to knowing how much food to buy, the purchasing process involves a methodical, step-by-step process beginning with menu planning and ending with the meal service. The tasks are the same whether purchasing for the private or public sectors. Regardless of the setting in which you operate, all of the steps must be completed by someone in the organization. You may operate a single site with no support from a central administrative office or work in a larger school district where tasks are divided among several staff persons.

The Food and Nutrition Service encourages you to learn as much as you can about the purchasing process by consulting two (2) publications available from the National Food Service Management Institute.

The first publication, *First Choice: A Purchasing Systems Manual for School Food Service* Publication number R 19-95, covers the management of the entire purchasing process in 14 Chapters, and includes appendices with sample forms, reference materials and a glossary. Topics include:

- ethics of purchasing and the expenditure of public funds;
- the marketplace environment, its language, relationships and food distribution chain;
- regulations governing labeling, standards, grading, inspection, imports, and antitrust;
- product movement and warehousing, inventory control and various menu systems;
- pricing, pre-bid conferences, pricing requests, and bid opening/awards;
- determination of bid units to control cost per serving;
- developing product specifications and the use of “approved brands”;
- researching and selecting a purchasing system;
- monitoring costs;
- laboratory product testing;

- receiving and quality control procedures; and
- purchasing cooperatives.

The second publication, *Choice Plus: A Reference Guide for Foods and Ingredients* Publication number FCS-297, is more narrowly focused than *First Choice*.

The *Choice Plus Manual*:

- concentrates on food and ingredient specifications/product sheets for a wide variety of products;
- helps you develop clear specifications and make more informed decisions when purchasing products commonly served in the Child Nutrition Programs;
- provides tips on buying fresh, canned and frozen fruits and vegetables; and
- includes several appendices that include information about food laws, standards and regulations, resources, and the Nutrition Facts panel.

Both of these publications contain information that may change frequently based on changing purchasing specifications and on a changing marketplace. To order the most recent version of one or both of these publications, contact the National Food Service Management Institute, University of Mississippi:

Phone: 800-321-3054

Fax: 800-321-3061

E-mail: [nfsmi@olemiss.edu](mailto:nfsmi@olemiss.edu)

Internet: [www.nfsmi.org](http://www.nfsmi.org)

Order # R19-95 \$26.00 (*Choice Plus*)

Order # FCS-297 \$33.25 (*First Choice*)





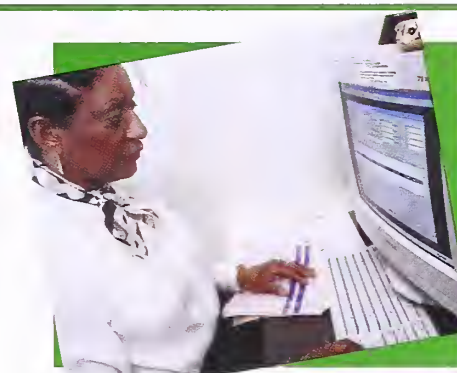
**E**

**Resources**

- E-1** Quick Website and Phone Number Reference Guide
- E-5** To Order Publications
- E-6** Food and Nutrition Service Publications
- E-12** Food and Nutrition Service Useful Resources
- E-15** National Food Service Management Institute Publications
- E-16** United States Department of Agriculture Useful Resources
- E-20** Other Federal Resources
- E-22** Food Safety Resources
- E-28** Food and Nutrition Service Regional Offices





**E****Resources****Quick Website  
and Phone  
Number  
Reference  
Guide**

Here is a listing of all the resources in this section. More information on each resource or publication is available on the pages following this quick reference guide.

**TO ORDER PUBLICATIONS****Healthy School Meals Resource Systems (HSMRS)**

<http://schoolmeals.nal.usda.gov> or (301) 504-5719

**Team Nutrition**

[www.fns.usda.gov/tn](http://www.fns.usda.gov/tn) or (703) 305-1624

**National Food Service Management Institute (NFSMI)**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**FOOD AND NUTRITION SERVICE PUBLICATIONS****Assisted NuMenus Guidance: School Lunch and Breakfast Menus**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**A Tool Kit for Healthy School Meals: Recipes and Training Materials**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Building Blocks for Fun and Healthy Meals—A Menu Planner for the Child and Adult Care Food Program**

[www.fns.usda.gov/tn/Resources/buildingblocks.html](http://www.fns.usda.gov/tn/Resources/buildingblocks.html) or (703) 305-1624

**Building for the Future: Nutrition Guidance for the Child Nutrition Programs**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Changing the Scene: Improving the School Nutrition Environment**

[www.fns.usda.gov/tn](http://www.fns.usda.gov/tn) or (703) 305-1624

**Child Care Recipes: Food for Health and Fun**

[www.nal.usda.gov/childcare/Recipes/childcare.html](http://www.nal.usda.gov/childcare/Recipes/childcare.html) or (301) 504-5719

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**Choice Plus: A Reference Guide for Foods and Ingredients**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Cooking A World of New Tastes**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Food Guide Pyramid**

[www.cnpp.usda.gov](http://www.cnpp.usda.gov) or (703) 605-4266

**Food Guide Pyramid for Young Children Booklet**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Food Guide Pyramid for Young Children Poster**

[www.fns.usda.gov/tn/Resources/fg\\_pyramid.html](http://www.fns.usda.gov/tn/Resources/fg_pyramid.html) or (703) 305-1624

**Food Guide Pyramid for Young Children Wall Chart**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Menu Planner for Healthy School Meals**

<http://schoolmeals.nal.usda.gov/Recipes/menuplan/menuplan.html>  
or (703) 305-1624

**Quantity Recipes for School Food Service**

<http://schoolmeals.nal.usda.gov/Recipes/quantity.html> or (800) 321-3054

**School Lunch Challenge Recipes I & II**

<http://schoolmeals.nal.usda.gov/Chef/recipechallenges.html> or (301) 504-5719

**School Meal Initiatives (SMI) Regulations**

[www.fns.usda.gov/cnd/Regulations/7cfrpart210.pdf](http://www.fns.usda.gov/cnd/Regulations/7cfrpart210.pdf) or (703) 305-2590

**Training Guidelines for Healthy School Meals**

<http://schoolmeals.nal.usda.gov/Training/tg.html> or (301) 504-5719

**FOOD AND NUTRITION SERVICE USEFUL RESOURCES**

**Child Nutrition Programs**

[www.fns.usda.gov/cnd](http://www.fns.usda.gov/cnd) or (703) 305-2590

**Food and Nutrition Service (FNS) Home Page**

[www.fns.usda.gov/fns](http://www.fns.usda.gov/fns) or (703) 305-2286

**Food Distribution Division (FDD)**

<http://www.fns.usda.gov/fdd> or (703) 305-2888



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**Eat Smart. Play Hard.™ (Power Panther™)**

[www.fns.usda.gov/fns/mascot/mascot.htm](http://www.fns.usda.gov/fns/mascot/mascot.htm) or (703) 305-2017

**Team Nutrition**

[www.fns.usda.gov/tn](http://www.fns.usda.gov/tn) or (703) 305-1624

**NATIONAL FOOD SERVICE MANAGEMENT INSTITUTE PUBLICATIONS**

**First Choice: A Purchasing Systems Manual for School Food Service**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Guide for Purchasing Food Service Equipment**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**The New Design Handbook for School Food Service**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**UNITED STATES DEPARTMENT OF AGRICULTURE USEFUL RESOURCES**

**Agricultural Marketing Service (AMS)**

[www.ams.usda.gov](http://www.ams.usda.gov) or (202) 720-8732

**Center for Nutrition Policy and Promotion**

[www.cnpp.usda.gov](http://www.cnpp.usda.gov) or (703) 605-4266

**Food and Nutrition Information Center (FNIC)**

[www.nal.usda.gov/fnic](http://www.nal.usda.gov/fnic) or (301) 504-5719

**Food Safety Inspection Service (FSIS)**

[www.fsis.usda.gov](http://www.fsis.usda.gov) or (202) 720-8732

**National Agricultural Library**

[www.nal.usda.gov](http://www.nal.usda.gov) or (301) 504-5755

**Nutrient Data Base for Standard Reference**

[www.nal.usda.gov/fnic/foodcomp](http://www.nal.usda.gov/fnic/foodcomp) or (301) 504-0630

**Nutrition and Your Health: Dietary Guidelines for Americans, 5th Edition**

[www.cnpp.usda.gov/Pubs/DG2000/Index.htm](http://www.cnpp.usda.gov/Pubs/DG2000/Index.htm) or (703) 605-4266

**OTHER FEDERAL RESOURCES**

**Center for Food Safety and Applied Nutrition (CFSAN)**

<http://vm.cfsan.fda.gov> or (888) SAFE FOOD or (888) 723-3366

**Centers for Disease Control and Prevention (CDC)**

[www.cdc.gov](http://www.cdc.gov) or (800) 311-3435

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**Federal Register**

[www.nara.gov/fedreg/index.html](http://www.nara.gov/fedreg/index.html) or (202) 512-2250

**Food and Drug Administration (FDA)**

[www.fda.gov](http://www.fda.gov) or (888) INFO-FDA or (888) 463-6332

**Nutrition.gov**

[www.nutrition.gov](http://www.nutrition.gov)

**United States Environmental Protection Agency (EPA)**

[www.epa.gov](http://www.epa.gov)

**FOOD SAFETY RESOURCES**

**Centers for Disease Control and Prevention (CDC) Division of Bacterial and Mycotic Diseases Food Safety Initiative**

[www.cdc.gov/foodsafety](http://www.cdc.gov/foodsafety) or (404) 639-2213

**Fight BAC! Keep Foods Safe From Bacteria™**

[www.fightbac.org](http://www.fightbac.org)

**Food Allergy and Anaphylaxis Network**

[www.foodallergy.org](http://www.foodallergy.org) or (800) 929-4040

**Foodborne Illness Education Information Center**

[www.nal.usda.gov/foodborne](http://www.nal.usda.gov/foodborne) or (301) 504-5719

**Food Safety and Inspection Service (FSIS)**

[www.fsis.usda.gov](http://www.fsis.usda.gov) or (202) 720-8732

**Food Safety: It's In Your Hands**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Food Safety Mini-Poster Kit**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

**Food Safety Training and Education Alliance (FSTEa)**

[www.fstea.org](http://www.fstea.org)

**Foodsafety.gov**

[www.foodsafety.gov](http://www.foodsafety.gov)

**Managing Food Safety: The Next Step**

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

## To Order Publications

### National Coalition for Food Safe Schools (NCFSS)

[www.foodsafeschools.org](http://www.foodsafeschools.org)

### National Food Safety Education Month<sup>SM</sup>

[www.foodsafety.gov/september](http://www.foodsafety.gov/september)

### Serving It Safe

<http://schoolmeals.nal.usda.gov/Safety/fnssafety.html> or (800) 321-3054

### Serving It Safe Poster

[www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054

### Thermy<sup>TM</sup>

[www.fsis.usda.gov/thermy](http://www.fsis.usda.gov/thermy) or (800) 535-4555

### Healthy School Meals Resource Systems (HSMRS)

The Healthy School Meals Resource System (HSMRS) is a searchable web site, providing information to persons working in USDA's Child Nutrition Programs.

For information about the HSMRS visit their website at:

<http://schoolmeals.nal.usda.gov> or contact:

Food and Nutrition Information Center  
National Agricultural Library/ARS/USDA  
10301 Baltimore Avenue, Room 105  
Beltsville, MD 20705-2351  
Phone: (301) 504-5719  
Fax: (301) 504-6409  
TTY: (301) 504-6856  
E-mail: [fnic@nal.usda.gov](mailto:fnic@nal.usda.gov)



### Team Nutrition

The School Meals Initiative (SMI) focuses on ensuring that school meals meet the *Dietary Guidelines for Americans* and nutrient standards based on age/grade appropriate *Recommended Dietary Allowances* (RDA). Because of SMI, school children will be eating lunches and breakfasts that are lower in fat and sodium and have more variety. Team Nutrition is the technical assistance and nutrition education initiative designed to assist schools and child care centers in bringing their meals in line with the *Dietary Guidelines* and nutrient standards, teaching children the importance of healthy eating and physical activity and fostering community support for these efforts.



For more information about Team Nutrition visit their website at:  
[www.fns.usda.gov/tn](http://www.fns.usda.gov/tn) or contact:

Team Nutrition  
3101 Park Center Drive, Room 632  
Alexandria, VA 22302  
Phone: (703) 305-1624  
Fax: (703) 305-2549  
E-mail: [teamnutrition@fns.usda.gov](mailto:teamnutrition@fns.usda.gov)

### **National Food Service Management Institute (NFSMI)**

The National Food Service Management Institute (NFSMI), located at the University of Mississippi, is committed to improving the operation and quality of all Child Nutrition Programs. This mission is accomplished through staff development programs, training experiences, educational materials, and a national satellite network. The Institute is funded by a grant from USDA's Food and Nutrition Service.

For information on food service, food preparation, meeting the *Dietary Guidelines*, food safety, or available videos and training packages, visit their website at:  
[www.nfsmi.org](http://www.nfsmi.org) or contact:

National Food Service Management Institute  
The University of Mississippi  
P.O. Drawer 188  
University, MS 38677-0188  
Phone: (800) 321-3054  
Fax: (800) 321-3061  
E-mail: [nfsmi@olemiss.edu](mailto:nfsmi@olemiss.edu)

### **Food and Nutrition Service Publications**

#### **Assisted NuMenus Guidance: School Lunch and Breakfast Menus**

This guidance includes two 5-week selective lunch cycle menus and a one-week non-selective breakfast cycle planned to meet nutrient standards if served as planned. The lunch cycles are for grades K-6 and 7-12. Menus include standardized recipes, generic food product descriptions, food preparation methods and nutrient analyses.

Copies of this publication were distributed in October 1996 to those districts and schools that chose to use Assisted NuMenus.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number FCS-300. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

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### **A Tool Kit for Healthy School Meals: Recipes and Training Materials**

This kit includes 53 recipes that can assist schools in preparing meals that meet the *Dietary Guidelines*, through the use of a promotional guide, and a training manual with instructions on preparing, modifying and standardizing recipes. Each recipe includes a nutrient analysis.

This publication can be downloaded from the Healthy School Meals Resource System (HSMRS) website at: <http://schoolmeals.nal.usda.gov> or it can be purchased from the National Food Service Management Institute (NFSMI), Publication number EX27-97 at: [www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054.

### **Building Blocks for Fun and Healthy Meals—A Menu Planner for the Child and Adult Care Food Program**

The Department of Agriculture's Team Nutrition produced this colorful publication entitled *Building Blocks for Fun and Healthy Meals—A Menu Planner for the Child and Adult Care Food Program*. This menu planner includes information on the CACFP meal requirements, advice on how to serve high quality meals and snacks, menu planning, nutrition education ideas and tips, the *Dietary Guidelines for Americans*, the *USDA Food Guide Pyramid*, food safety facts, and sample menus, Publication number FNS-305.

This publication is available from Team Nutrition. For more information visit their website at: [www.fns.usda.gov/tn/Resources/buildingblocks.html](http://www.fns.usda.gov/tn/Resources/buildingblocks.html) or call (703) 305-1624.

### **Building for the Future: Nutrition Guidance for the Child Nutrition Programs**

This publication offers practical guidance to help food service professionals provide sound nutrition for America's children. It also provides information for others in the education community who are interested in nutrition, including teachers, parents, administrators, school board members, school health personnel, and children and teens who participate in the programs.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number FNS-279. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

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### **Changing the Scene: Improving the School Nutrition Environment**

*Changing the Scene* is an action kit to help parents, teachers, school administrators, and school food service professionals identify areas needing improvement. This kit gives general guidelines for establishing your team and planning for change, explains each of the six components of a healthy school nutrition environment, and provides criteria for determining success. It also offers ideas for getting activities started, presents guidelines for identifying, contacting, and working with all the groups actively involved on your team, provides tips for attracting media attention and working effectively with the media, cites references and resources, and also provides support materials.

This publication is available from USDA's Team Nutrition. For more information visit their website at: [www.fns.usda.gov/tn](http://www.fns.usda.gov/tn) or call (703) 305-1624

### **Child Care Recipes: Food for Health and Fun**

This publication provides recipes for use in the CACFP.

To help you use these recipes from USDA, this guide:

- provides background on how the recipes were selected, developed, and field-tested;
- takes you through each section of the recipe format, explaining how the information is organized;
- explains and demonstrates the uses of the nutrient analysis provided for each recipe; and
- includes instructions on substituting ingredients and adjusting recipes, as well as tips for maximizing quality.

This publication is available from the Child Care Nutrition Resource System, Publication number FNS-304. For more information visit their website at: [www.nal.usda.gov/childcare/Recipes/childcare.html](http://www.nal.usda.gov/childcare/Recipes/childcare.html) or contact:

Food and Nutrition Information Center  
National Agricultural Library/ARS/USDA  
10301 Baltimore Avenue, Room 105  
Beltsville, MD 20705-2351  
Phone: (301) 504-5719  
Fax: (301) 504-6409  
TTY: (301) 504-6856  
E-mail: [fnic@nal.usda.gov](mailto:fnic@nal.usda.gov)



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### **Choice Plus: A Reference Guide for Foods and Ingredients**

The National Food Service Management Institute (NFSMI) has worked with USDA/FNS through a Cooperative Agreement to develop *Choice Plus*, a complimentary publication to the Institute's *First Choice* purchasing manual. *Choice Plus* provides information that allows local programs to make informed purchasing decisions. The guide consists of approximately 180 pages with 80 photos and 40 illustrations that describe, by specific foods, the key points of a food purchase specification.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number FCS-297. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **Cooking A World of New Tastes**

This is a set of four training videos on healthy food production for school food service personnel. Videos and accompanying guide feature USDA recipes and explore new approaches to the production of healthy foods with an emphasis on developing culinary skills.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number FNS. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **Food Guide Pyramid**

The *Food Guide Pyramid* is a description of what to eat each day based on the *Dietary Guidelines*. It's not a rigid prescription but a general guide that helps you choose a healthful diet that's right for you. The pyramid calls for eating a variety of foods to get the nutrients you need and at the same time the right amount of calories to maintain healthy weight. Use the pyramid to help you eat better every day. Start at the pyramid base with plenty of breads, cereals, rice, pasta, vegetables, and fruits. Add 2-3 servings from the milk group and 2-3 servings from the meat group. Oils and sweets are at the top of the pyramid.

This publication is available from the Center for Nutrition Policy and Promotion (CNPP). For more information visit their website at: [www.cnpp.usda.gov](http://www.cnpp.usda.gov) or contact:

Director, Public Information  
Center for Nutrition Policy and Promotion  
3101 Park Center Drive  
10th Floor  
Alexandria, VA 22302  
Phone: (703) 605-4266  
E-mail: [john.webster@cnpp.usda.gov](mailto:john.webster@cnpp.usda.gov)

### **Food Guide Pyramid for Young Children Booklet**

The *Food Guide Pyramid for Young Children* provides a suggested diet for young children. The Center for Nutrition Policy and Promotion, part of USDA's Food, Nutrition, and Consumer Services, analyzed the diets of young children, ages 2-6 years old, and adapted existing food guidance recommendations to meet their specific needs. The development of the *Food Guide Pyramid for Young Children* and supporting educational material was a direct result of this research. Topics include pyramid basics, healthy eating tips, major food groups, kids in the kitchen, planning for variety, learning activities, child-size servings, and snack ideas.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number PA1647. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **Food Guide Pyramid for Young Children Poster**

This large, colorful, and appealing poster is a daily food guide for 2 to 6 year-old children. The 27" x 34" poster features a serving size chart that teaches what young children should eat to help them grow healthy and strong.

This publication is available from USDA's Team Nutrition, Publication number PA1648. For more information visit their website at: [www.fns.usda.gov/tn/Resources/fg\\_pyramid.html](http://www.fns.usda.gov/tn/Resources/fg_pyramid.html) or call (703) 305-1624.

### **Food Guide Pyramid for Young Children Wall Chart**

This 8-1/2" X 11" leaflet shows the *Food Guide Pyramid for Young Children* in full color and includes a copy-ready activity chart for teachers to record what a child eats over a week to compare to the *Food Guide Pyramid*.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number PA1649. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **Menu Planner for Healthy School Meals**

The Menu Planner contains information on the nutrition goals established by the *School Meals Initiative for Healthy Children*. You will also find information on the menu planning systems that can help you achieve the nutrition goals.

In addition, this menu planner offers practical suggestions for making simple changes to create healthy school meals. Despite your best efforts, kids can be hard to convince. That's why the final chapter addresses marketing healthy school meals.

This publication is available from USDA's Team Nutrition, Publication number FNS-303.

It can also be downloaded from the Healthy School Meals Resource System (HSMRS) website at: <http://schoolmeals.nal.usda.gov/Recipes/menuplan/menuplan.html> or can be ordered online from Team Nutrition at [www.fns.usda.gov/tn/Resources/menuplan.html](http://www.fns.usda.gov/tn/Resources/menuplan.html) or (703) 305-1624.

### **Quantity Recipes for School Food Service**

*Quantity Recipes* contains about 150 recipes. Each recipe has been standardized for both 50 and 100 servings, and includes a nutrient analysis and marketing guidance when fresh vegetables are specified. Published 1988.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number FNS-1371. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054. It can also be downloaded from the Healthy School Meals Resource System website at: <http://schoolmeals.nal.usda.gov/Recipes/quantity.html>

### **School Lunch Challenge Recipes I & II**

The School Lunch Challenge was a nationwide competition held by the American Culinary Federation that teamed chefs with school food service directors. The winning, low-cost, popular recipes were standardized for use in schools.

This publication can be downloaded from the Healthy School Meals Resource System (HSMRS) website at: <http://schoolmeals.nal.usda.gov/Chef/recipechallenges.html> or call (301) 504-5719.

### **School Meal Initiatives (SMI) Regulations**

*The Nutrition Standards for Lunches and Menu Planning Methods*

Regulation can be obtained from 7 CFR Part 210.10

A copy of this regulation can be obtained from USDA, FNS, Child Nutrition Division (CND). For more information visit their website at: [www.fns.usda.gov/cnd/Regulations/7cfrpart210.pdf](http://www.fns.usda.gov/cnd/Regulations/7cfrpart210.pdf) or contact:

U.S. Department of Agriculture  
Food and Nutrition Service  
Child Nutrition Division  
3101 Park Center Drive, Room 638  
Alexandria, VA 22302  
Phone: (703) 305-2590  
Fax: (703) 305-2879  
E-mail: [cndinternet@fns.usda.gov](mailto:cndinternet@fns.usda.gov)



## **Training Guidelines for Healthy School Meals**

This 19-page publication offers recommended topic areas, content and tools for training school food service personnel at several levels: director, manager, food production staff, and general assistant.

This publication can be downloaded from the Healthy School Meals Resource System (HSMRS) website at: <http://schoolmeals.nal.usda.gov/Training/tg.html> or call (301) 504-5719.

## **Child Nutrition Programs**

### *Afterschool Snacks*

On October 31, 1998, President Clinton signed the Child Nutrition Reauthorization Act of 1998 (Public Law 105-336). This Act expanded the Department of Agriculture's National School Lunch Program (NSLP) and Child and Adult Care Food Program (CACFP) to provide cash reimbursements for snacks served to children and youth in certain afterschool care programs. This Act demonstrates USDA's commitment to supporting afterschool activities aimed at promoting the health and well being of children and youth in our communities.

### *National School Lunch Program*

The National School Lunch Program (NSLP) is a federally-assisted meal program operating in more than 96,000 public and nonprofit private schools and residential child care institutions. It provides nutritionally balanced, low-cost or free lunches to nearly 27 million children each school day. The program was established under the National School Lunch Act, signed by President Harry Truman in 1946.

### *School Breakfast Program*

The School Breakfast Program (SBP) is a federally-assisted meal program operating in more than 72,000 schools and institutions. It provides nutritionally balanced, low-cost or free breakfasts to 7.4 million children each school day. The program was established under the Child Nutrition Act of 1966 to ensure that all children have access to a healthy breakfast at school to promote learning readiness and healthy eating behaviors.

### *Special Milk Program*

The Special Milk Program (SMP) provides milk to children in schools and child care institutions that do not participate in other Federal child nutrition meal service programs. The program reimburses schools for the milk they serve.

### *Summer Food Service Program*

The Summer Food Service Program (SFSP) provides free, nutritious meals and snacks to help children in low-income areas get the nutrition they need to learn, play, and grow throughout the summer months when they are out of school.

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### *Child & Adult Care Food Program*

CACFP is the Child and Adult Care Food Program, a Federal program that provides healthy meals and snacks to children and adults receiving day care. It plays a vital role in improving the quality of day care and making it more affordable for many low-income families.

For more information visit the FNS Child Nutrition Division website at: [www.fns.usda.gov/cnd](http://www.fns.usda.gov/cnd) or contact:

U.S. Department of Agriculture  
Food and Nutrition Service  
Child Nutrition Division  
3101 Park Center Drive, Room 638  
Alexandria, VA 22302  
Phone: (703) 305-2590  
Fax: (703) 305-2879  
E-mail: [cninternet@fns.usda.gov](mailto:cninternet@fns.usda.gov)

### **Food and Nutrition Service (FNS)**

FNS increases food security and reduces hunger in partnership with cooperating organizations by providing children and low-income people access to food, a healthful diet, and nutrition education in a manner that supports American agriculture, and inspires public confidence.

For more information visit the FNS website at [www.fns.usda.gov/fns](http://www.fns.usda.gov/fns) or contact:

U.S. Department of Agriculture  
Food and Nutrition Service  
Public Information  
3101 Park Center Drive, Room 819  
Alexandria, VA 22302  
Phone: (703) 305-2286  
E-mail: [webmaster@fns.usda.gov](mailto:webmaster@fns.usda.gov)

### **Food Distribution (FDD)**

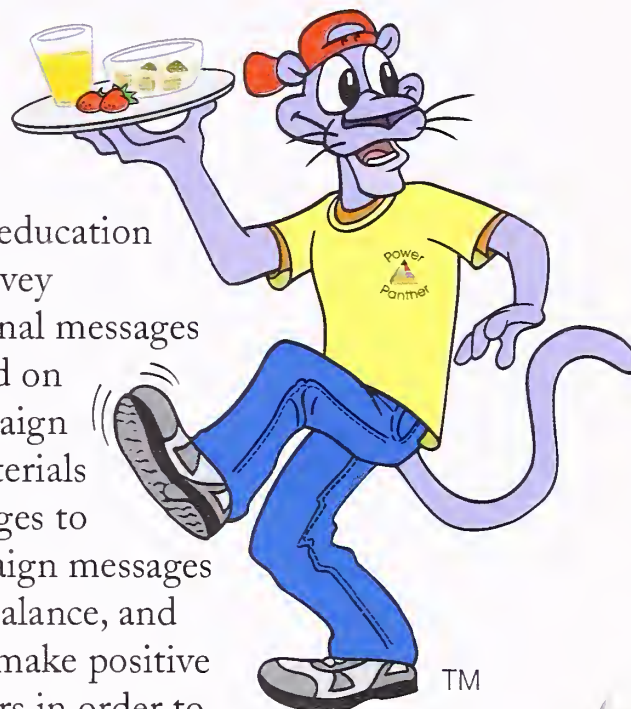
USDA's Food and Nutrition Service (FNS) administers food distribution programs that provide food and nutrition assistance to eligible individuals, families, and institutions. A major responsibility of the USDA's FNS is providing nutritious foods to our nation's children and eligible adults while at the same time supporting American agriculture. USDA purchases commodities to remove surpluses from the marketplace and delivers them through the food distribution programs to State agencies. These agencies, in turn, provide them to schools and other outlets.

For more information visit the FNS, Food Distribution (FDD) website at:  
[www.fns.usda.gov/fdd](http://www.fns.usda.gov/fdd) or contact:

U.S. Department of Agriculture  
Food and Nutrition Service  
Food Distribution Division  
5th Floor  
3101 Park Center Drive  
Alexandria, VA 22302  
Phone: (703) 305-2888  
E-mail: [fdd-pst@fns.usda.gov](mailto:fdd-pst@fns.usda.gov)

### **Eat Smart. Play Hard.<sup>TM</sup> (Power Panther<sup>TM</sup>)**

Eat Smart Play Hard<sup>TM</sup> is a national nutrition education and promotion campaign. It is designed to convey science-based, behavior-focused and motivational messages about healthy eating and physical activity based on the *Dietary Guidelines for Americans*. The campaign uses a mascot, Power Panther<sup>TM</sup>, and other materials to deliver nutrition and physical activity messages to children and their caregivers. The initial campaign messages focus on four basic themes: breakfast, snacks, balance, and physical activity. The campaign is designed to make positive changes in eating and physical activity behaviors in order to improve long term health in preschool and school-aged (ages 2 to 18 years) children.



For more information visit the Office of Analysis, Nutrition, and Evaluation (OANE) website at: [www.fns.usda.gov/fns/mascot/mascot.htm](http://www.fns.usda.gov/fns/mascot/mascot.htm) or contact:

U.S. Department of Agriculture  
Food and Nutrition Service  
Office of Analysis, Nutrition, and Evaluation (OANE)  
3101 Park Center Drive, Room 1014  
Alexandria, VA 22302  
Phone: (703) 305-2017  
E-mail: [oaneweb@fns.usda.gov](mailto:oaneweb@fns.usda.gov)

### **Team Nutrition**

The School Meals Initiative focuses on ensuring that school meals meet the *Dietary Guidelines for Americans* and nutrient standards based on age/grade appropriate *Recommended Dietary Allowances*. Children will be eating lunches and breakfasts that are lower in fat and sodium and have more variety. Team Nutrition is the nutrition education initiative designed to assist schools and child care centers in bringing their meals in line with the *Dietary Guidelines*, teaching children the importance of healthy eating and physical activity and fostering community support for these efforts.



For more information visit the Team Nutrition website at: [www.fns.usda.gov/tn](http://www.fns.usda.gov/tn) or contact:

U.S. Department of Agriculture  
Food and Nutrition Service  
Team Nutrition  
3101 Park Center Drive, Room 632  
Alexandria, VA 22302  
Phone: (703) 305-1624  
Fax: (703) 305-2549  
E-mail: [teamnutrition@fns.usda.gov](mailto:teamnutrition@fns.usda.gov)

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**National Food  
Service  
Management  
Institute  
Publications**

**First Choice: A Purchasing Systems Manual for School Food Service**

This manual is a purchasing systems reference for school food service personnel. Topics include steps in purchasing, the marketplace, regulations, product movement, bid units, specifications, brand approval, and receiving.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number R19-95. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

**Guide for Purchasing Food Service Equipment**

This guide presents a decision making process and critical pathway approach to purchasing conventional food service production equipment. It addresses issues related to new construction, renovation and replacements. Developed by the NFSMI, FNS printed a limited number of copies for distribution to school food authorities, Publication number R35-98. (Companion reference to *The New Design Handbook for School Food Service*, Publication number EX11-95).

These publications are available for purchase from the National Food Service Management Institute (NFSMI). For more information visit their website at [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

**The New Design Handbook for School Food Service**

This publication provides up-to-date guidelines for designing or improving food service areas. It Covers traffic flow considerations, efficient kitchen layouts, and essential equipment requirements, Publication number EX11-95. (Companion reference to *Guide for Purchasing Foodservice Equipment*, Publication number R35-98).

These publications are available for purchase from the National Food Service Management Institute (NFSMI). For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **Agricultural Marketing Service (AMS)**

The Agricultural Marketing Service is composed of six commodity divisions: Cotton, Dairy, Fruit and Vegetable, Livestock and Seed, Poultry, and Tobacco. The divisions employ specialists who provide standardization, grading, and market news services for those commodities, and they enforce the Perishable Agricultural Commodities Act and the Federal Seed Act. AMS commodity divisions also oversee marketing agreements and orders, administer research and promotion programs, and purchase commodities for Federal food programs.

For more information visit their website at: [www.ams.usda.gov](http://www.ams.usda.gov) or contact:

U.S. Department of Agriculture  
Agricultural Marketing Service (AMS)  
1400 Independence Avenue, SW  
Washington, DC 20250  
Phone: (202) 720-8732  
E-mail: [AMSWebmaster@usda.gov](mailto:AMSWebmaster@usda.gov)

### **Center for Nutrition Policy and Promotion (CNPP)**

The Center for Nutrition Policy and Promotion was created in the U.S. Department of Agriculture, December 1, 1994, and is the focal point within USDA where scientific research is linked with the nutritional needs of the American public. The Center for Nutrition Policy and Promotion carries out its mission by:

- developing and coordinating nutrition policy within the USDA;
- assessing the cost-effectiveness of government sponsored nutrition programs on food consumption, food expenditures, food-related behavior, and nutritional status;
- preparing periodic updates on the cost of family food plans and of raising children;
- investigating techniques for effective nutrition communication with the public; and
- evaluating the nutrient content of the U.S. food supply.

For more information visit their website at: [www.cnpp.usda.gov](http://www.cnpp.usda.gov) or contact:

Director, Public Information  
Center for Nutrition Policy and Promotion  
3101 Park Center Drive  
10th Floor  
Alexandria, VA 22302  
Phone: (703) 605-4266  
E-mail: [john.webster@cnpp.usda.gov](mailto:john.webster@cnpp.usda.gov)

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### **Food and Nutrition Information Center (FNIC)**

The Food and Nutrition Information Center (FNIC) is located at USDA's National Agricultural Library in Beltsville, Maryland. USDA program participants can borrow child care, food safety, food service, and other useful materials, videos, and training materials free of charge. Sample Nutrition Education and Training materials are available at FNIC. Food Labeling material is also available. On-line bibliographies are offered to assist in research.

For more information about the Food and Nutrition Information Center (FNIC) visit their website at: [www.nal.usda.gov/fnic](http://www.nal.usda.gov/fnic) or contact:

Food and Nutrition Information Center  
National Agricultural Library/ARS/USDA  
10301 Baltimore Avenue, Room 105  
Beltsville, MD 20705-2351  
Phone: (301) 504-5719  
Fax: (301) 504-6409  
TTY: (301) 504-6856  
E-mail: [fnic@nal.usda.gov](mailto:fnic@nal.usda.gov)

### **Food Safety and Inspection Service (FSIS)**

The Food Safety and Inspection Service (FSIS), a public health regulatory agency of the U.S. Department of Agriculture, protects consumers by ensuring that meat, poultry, and egg products are safe, wholesome, and accurately labeled.

For information about the Food Safety Inspection Service (FSIS) visit their website at: [www.fsis.usda.gov](http://www.fsis.usda.gov) or contact:

U.S. Department of Agriculture  
Food Safety and Inspection Service  
1400 Independence Avenue, SW  
Washington, DC 20250-3700  
Phone: (202) 720-8732  
E-mail: [fsis.webmaster@usda.gov](mailto:fsis.webmaster@usda.gov)

Meat and Poultry Hotline:  
Phone: 1-800-535-4555  
TTY: 1-800-256-7072

### **National Agricultural Library (NAL)**

The National Agricultural Library (NAL), part of the Agricultural Research Service of the U.S. Department of Agriculture, is one of four National Libraries in the United States. NAL is a major international source for agriculture and related information. This website provides access to NAL's many resources and is a gateway to its associated institutions.



NAL also provides access to e-discussion groups sponsored by the USDA. Some of these e-discussion groups include:

*Mealtalk:*

Mealtalk is an e-mail discussion group intended as a communication tool to link the professionals who are operating the Child Nutrition Programs, such as the National School Lunch Program and the Child and Adult Care Food Program, so that they can share resources, information, and innovative solutions to common day-to-day problems.

*Successtalk:*

Successtalk is an e-mail discussion group intended as a communication tool to link school health professionals, child nutrition educators, principals, teachers, parents, and community members who are interested in creating a healthy school nutrition environment. Members can share success stories, resources, information, and innovative program ideas that encourage healthy eating and physical activity habits.

*Food Safe:*

Foodsafe is an e-discussion group that links professionals interested in food safety issues. Searchable archives of all past postings are maintained on the website. Sponsored by the USDA/FDA Foodborne Illness Education Information Center at the National Agricultural Library.

*Cacfp-talk:*

Cacfp-talk is an on-line, interactive discussion group for State agencies and institutions participating in the Child and Adult Care Food Programs. Membership in Cacfp-talk is limited to personnel within State agencies and child care institutions participating in the CACFP.

*Reviewtalk:*

Reviewtalk is an on-line, interactive discussion group. The findings and issues that arise while conducting nutrition reviews and providing technical assistance to schools participating in the National School Lunch and Breakfast Programs will be discussed.

For information about the National Agricultural Library (NAL) visit their website at: [www.nal.usda.gov](http://www.nal.usda.gov) or contact:

National Agricultural Library/ARS/USDA  
10301 Baltimore Avenue  
Beltsville, MD 20705-2351  
Phone: 301-504-5755  
E-mail: [Webmaster@nal.usda.gov](mailto:Webmaster@nal.usda.gov)

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### **Nutrient Database for Standard Reference**

This database allows users to search for nutrition values of foods in the USDA Nutrient Database for Standard Reference, Release 13. The Nutrient Data Laboratory (NDL) is one of seven units in the Beltsville Human Nutrition Research Center (BHNRC) of the Agricultural Research Service (ARS). NDL and its predecessor organizations in USDA have been compiling and developing food composition databases for over a century. NDL has an interdisciplinary staff composed of nutritionists, dietitians, food technologists, and computer specialists.

To search the Nutrient Database for Standard Reference visit their website at: [www.nal.usda.gov/fnic/foodcomp](http://www.nal.usda.gov/fnic/foodcomp) or contact:

Nutrient Data Laboratory  
Agricultural Research Service  
Beltsville Human Nutrition Research Center  
10300 Baltimore Avenue  
Building 005, Room 107, BARC-West  
Beltsville, MD 20705-2350  
Phone: 301-504-0630  
FAX: 301-504-0632  
E-mail: [jholden@rbhnrc.usda.gov](mailto:jholden@rbhnrc.usda.gov)

### **Nutrition and Your Health: Dietary Guidelines for Americans, 5th Edition**

The *Dietary Guidelines* are science-based recommendations published by the Federal Government that provide advice for healthy Americans 2 years old and over about food choices and physical activity to promote health and prevent disease.

The *Dietary Guidelines* are:

- mandated by law;
- published every 5 years;
- based on the preponderance of scientific evidence;
- the cornerstone of Federal nutrition policy; and
- a basis for nutrition education/promotion activities.

For more information visit their website at: [www.cnpp.usda.gov/Pubs/DG2000/Index.htm](http://www.cnpp.usda.gov/Pubs/DG2000/Index.htm) or contact:

Director, Public Information  
Center for Nutrition Policy and Promotion  
3101 Park Center Drive  
10th Floor  
Alexandria, VA 22302  
Phone: (703) 605-4266  
E-mail: [john.webster@cnpp.usda.gov](mailto:john.webster@cnpp.usda.gov)

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## **Other Federal Resources**

### **Center for Food Safety and Applied Nutrition (CFSAN)**

The Center for Food Safety and Applied Nutrition, known as CFSAN, is one of six product-oriented centers, in addition to a nationwide field force, that carry out the mission of the Food and Drug Administration (FDA). FDA is a scientific regulatory agency responsible for the safety of the nation's domestically produced and imported foods, cosmetics, drugs, biologics, medical devices, and radiological products. It is one of the oldest Federal agencies whose primary function is consumer protection. The agency touches and directly influences the lives of everyone in the United States. FDA is recognized internationally as the leading food and drug regulatory agency in the world. Many foreign nations seek and receive FDA's help in improving and monitoring the safety of their products. FDA is part of the Executive Branch of the United States Government within the Department of Health and Human Services (DHHS) and the Public Health Service (PHS).

For more information about the Center for Food Safety and Applied Nutrition (CFSAN) visit their website at: <http://vm.cfsan.fda.gov> or contact:

Center for Food Safety and Applied Nutrition (CFSAN)  
200 C Street, SW  
Washington, DC 20204  
Phone: 1-888-SAFEFOOD or 1-888-723-3366

### **Centers for Disease Control and Prevention (CDC)**

The Centers for Disease Control and Prevention (CDC) is recognized as the lead Federal agency for protecting the health and safety of people, at home and abroad, providing credible information to enhance health decisions, and promoting health through strong partnerships. CDC provides the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States. CDC, located in Atlanta, GA, is an agency of the Department of Health and Human Services.

For more information about the Centers for Disease Control and Prevention (CDC) visit their website at: [www.cdc.gov](http://www.cdc.gov) or contact:

Centers for Disease Control and Prevention  
1600 Clifton Rd.  
Atlanta, GA 30333  
Phone: (800) 311-3435

### **Federal Register**

The Office of the Federal Register informs citizens of their rights and obligations by providing ready access to the official text of Federal laws, Presidential documents, administrative regulations and notices, and descriptions of Federal organizations, programs and activities.



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For more information about the Federal Register visit their website at:  
[www.nara.gov/fedreg/index.html](http://www.nara.gov/fedreg/index.html) or contact the Government Printing Office at:  
Government Printing Office  
Superintendent of Documents  
P.O. Box 371954  
Pittsburgh, PA 15250-7954  
Phone: (202) 512-2250  
E-mail: [fedreg.info@nara.gov](mailto:fedreg.info@nara.gov)

### **Food and Drug Administration (FDA)**

FDA's mission is to promote and protect the public health by helping safe and effective products reach the market in a timely way, and monitoring products for continued safety after they are in use. FDA's work is a blending of law and science aimed at protecting consumers.

For more information about the Food and Drug Administration (FDA) visit their website at: [www.fda.gov](http://www.fda.gov) or contact:

Food and Drug Administration  
5600 Fishers Lane  
Rockville, Maryland 20857  
Phone: 1-888-INFO-FDA or 1-888-463-6332

### **Nutrition.gov**

Nutrition.gov is a portal to nutrition information across the agencies of the Federal government. It provides easy access to all online Federal government information on nutrition. This national resource makes obtaining government information on nutrition, healthy eating, physical activity, and food safety, easily accessible in one place. Providing accurate scientific information on nutrition and dietary guidance is critical to the public's ability to make the right choices in the effort to curb obesity and other food-related diseases.

The website also links to information about nutrition and food assistance programs such as the Food Stamp Program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the School Lunch and Breakfast programs and to federally-supported research, reports, and brochures as well as funding opportunities in the Federal government. Users can find information on healthy eating, the *Food Guide Pyramid*, the *Dietary Guidelines for Americans*, dietary supplements, fitness and how to keep food safe.

For more information about Nutrition.gov visit their website at:  
[www.nutrition.gov](http://www.nutrition.gov)

## **Food Safety Resources**

### **United States Environmental Protection Agency (EPA)**

The mission of the U.S. Environmental Protection Agency is to protect human health and to safeguard the natural environment—air, water, and land—upon which life depends.

For more information about the Environmental Protection Agency (EPA) visit their website at: [www.epa.gov](http://www.epa.gov) or contact:

U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

### **Centers for Disease Control and Prevention (CDC), Division of Bacterial and Mycotic Diseases, Food Safety Initiative**

The mission of CDC's Food Safety Initiative Activity (FSIA) is to lead CDC's food safety program to prevent illness, disability and death due to domestic and imported foodborne diseases. They collaborate with and support other CDC organizations with focus on attainment of food safety program plans, goals and objectives. CDC works in partnership with the U.S. Food and Drug Administration (FDA), U.S. Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), State and local health departments, and other public and private organizations to strengthen regulations and policies for prevention of foodborne diseases. Objectives include:

- building epidemiology and laboratory capacity;
- improving foodborne disease surveillance and outbreak response systems;
- supporting applied research and technology transfer projects;
- providing prevention training and education;
- communicating food safety information;
- measuring social and economic burden associated with foodborne diseases; and
- developing and building effective partnerships with government agencies and private organizations.

For more information about the Center for Disease Control and Prevention (CDC) Food Safety Office visit their website at: [www.cdc.gov/foodsafety](http://www.cdc.gov/foodsafety) or contact:

Centers for Disease Control and Prevention  
1600 Clifton Rd.  
Atlanta, GA 30333  
Phone: (404) 639-2213

## **Fight BAC! Keep Foods Safe From Bacteria™**

Launched with a national send-off in October 1997, the Fight BAC!™ Campaign is the product of a unique partnership of industry, government, and consumer groups dedicated to reducing the incidence of foodborne illness. By combining resources, a focused and more unified program is now available to consumers, who share in the responsibility for safe food handling. BAC!, the focal point of the campaign, helps put a face on invisible foodborne bacteria. The four safe food handling messages provide consumers with consistent, brief, and positive actions they can take to reduce their risk of illness.



For more information about Fight Bac!™ or the Partnership for Food Safety Education visit their website at: [www.fightbac.org](http://www.fightbac.org) or contact:

USDA's Meat and Poultry Hotline:

1-800-535-4555

or

FDA's Food Safety Information Hotline:

1-888-SAFEFOOD or 1-888-723-3366

## **Food Allergy & Anaphylaxis Network**

The Food Allergy and Anaphylaxis Network provides many resources about food allergies such as:

- questions and facts about food allergies;
- practical tips for meals;
- publications and information about shopping and cooking; and
- specific programs for schools and child care facilities.

For more information about the Food Allergy & Anaphylaxis Network visit their website at: [www.foodallergy.org](http://www.foodallergy.org) or contact:

The Food Allergy & Anaphylaxis Network

10400 Eaton Place, Suite 107

Fairfax, VA 22030-2208

Phone: (800) 929-4040

or (703) 691-3179

Fax: (703) 691-2713

## **Foodborne Illness Education Information Center**

The USDA/FDA Foodborne Illness Education Information Center provides information about foodborne illness prevention to educators, trainers, and organizations developing education and training materials for food workers and consumers. The center is part of an interagency agreement between the Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA) and the Food and Drug Administration (FDA) of the United States Department of Health and Human Services. It is housed at the



Food and Nutrition Information Center (FNIC) of the National Agricultural Library (NAL), USDA in Beltsville, Maryland. FSIS and FDA established the center as part of a national campaign to reduce the risk of foodborne illness and to increase knowledge of food-related risks from production through consumption. The center's primary function is the development and maintenance of two databases.

The Foodborne Illness Educational Materials Database is a compilation of consumer and food worker educational materials developed by universities; private industry; and local, State, and Federal agencies. This includes computer software; audiovisuals; posters; games and teaching guides for elementary and secondary school education; training materials for the management and workers of retail food markets, food service establishments and institutions; and educational research materials.

The HACCP Training Programs and Resources Database is a searchable list of HACCP training courses and resources.

The center also sponsors Foodsafe, an e-discussion group that links professionals interested in food safety issues. Searchable archives of all past postings are maintained on their website.

For more information about the Foodborne Illness Education Information Center visit their website at: [www.nal.usda.gov/foodborne](http://www.nal.usda.gov/foodborne) or contact:

USDA/FDA Foodborne Illness Education Information Center  
National Agricultural Library/USDA  
Beltsville, MD 20705-2351  
Phone: (301) 504-5719  
Fax: (301) 504-6409  
Email: [foodborne@nal.usda.gov](mailto:foodborne@nal.usda.gov)

### **Food Safety and Inspection Service (FSIS)**

The Food Safety and Inspection Service (FSIS), a public health regulatory agency of the U.S. Department of Agriculture, protects consumers by ensuring that meat, poultry, and egg products are safe, wholesome, and accurately labeled.

For information about the Food Safety Inspection Service (FSIS) visit their website at: [www.fsis.usda.gov](http://www.fsis.usda.gov) or contact:

U.S. Department of Agriculture  
Food Safety and Inspection Service  
1400 Independence Avenue, SW  
Washington, D.C. 20250-3700  
Phone: (202) 720-8732  
E-mail: [fsis.webmaster@usda.gov](mailto:fsis.webmaster@usda.gov)

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Meat and Poultry Hotline:  
Phone: 1-800-535-4555  
TTY: 1-800-256-7072

### **Food Safety: It's in Your Hands**

This satellite teleconference videotape addresses issues related to food safety and the prevention of foodborne illness including identifying food safety hazards, avoiding cross-contamination, and personal hygiene and hand washing. Published 1999.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number TT082599. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **Food Safety Mini-Poster Kit**

This kit consists of a set of 14 (8-1/2" x 11") mini-posters and one (25-1/2" x 32-3/4") full-size poster; all posters in full color. The mini-posters relate to food safety topics including hand washing, personal appearance and hygiene, food storage, temperatures, and food preparation.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number EX50-00. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **Food Safety Training and Education Alliance (FSTEa)**

The Food Safety Training and Education Alliance for Retail, Food Service, Vending, Institutions, and Regulators (FSTEa) was born out of the President's Food Safety Initiative of 1997. The initiative directs Federal agencies to:

- form alliances with industry, consumer, trade, state and local food protection and agencies to share food safety education materials and conduct joint education activities in order to leverage resources and expand the reach of the alliances;
- form an alliance joining expertise of Federal, State, and local agencies, industry and professional and trade associations to promote and implement the *Food Code*; and
- develop multilingual communication techniques targeted to specific groups to overcome communication barriers.

For more information about the Food Safety Training and Education Alliance (FSTEa) visit their website at: [www.fstea.org](http://www.fstea.org)

### **Foodsafety.gov**

This site is the gateway to Government food safety information. For more information visit this website at: [www.foodsafety.gov](http://www.foodsafety.gov)

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### **Managing Food Safety: The Next Step**

This satellite teleconference videotape provides an opportunity for school food and nutrition program personnel to learn about the basic principles of a food safety assurance system and how to apply these principles. Published 2000.

This publication is available for purchase from the National Food Service Management Institute (NFSMI), Publication number TT012600. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

### **National Coalition for Food Safe Schools (NCFSS)**

This site's goal is to serve as a gateway to a wealth of Internet-based food safe schools information and resources. Links are provided to many of our member constituent websites as well as to other sites containing food safety materials and resources for children, educators, parents, and school food service staff.

For more information about the National Coalition for Food Safe Schools visit their website at: [www.foodsafeschools.org](http://www.foodsafeschools.org)

### **National Food Safety Education Month<sup>SM</sup>**

National Food Safety Education Months<sup>SM</sup> is sponsored by the National Restaurant Association Educational Foundation's International Food Safety Council. This initiative focuses on heightening the awareness of the importance of food safety education to the restaurant and food service industry and is supported by many public and private sector organizations. September marks National Food Safety Education Month<sup>SM</sup>. The goals of the Month are:

- to reinforce food safety education and training among restaurant and foodservice workers; and
- to educate the public to handle and prepare food properly at home, where food safety is equally important—whether cooking from scratch or serving take-out meals and restaurant leftovers.

Restaurants and food service operations, hospitality associations, colleges and universities, Federal, State, and local government agencies, and consumer organizations across the country participate in National Food Safety Education Month<sup>SM</sup> in a variety of ways each year.

For more information about National Food Safety Education Month<sup>SM</sup> visit their website at: [www.foodsafety.gov/september](http://www.foodsafety.gov/september)

### **Serving it Safe – A Manager's Tool Kit**

*Serving It Safe: A Manager's Tool Kit* is a training program in safety and sanitation for all levels of food service employees. It consists of a teacher's manual, teaching aids, and a color poster. Also available are the Fall 1999 update pages based on the 1999 *Food Code*. The Kit is available through interlibrary loan from the National Agricultural Library, Call Number aTX537 S47 1996.

Publication number FNS-295



This publication and update pages can be downloaded from the Healthy School Meals Resource System (HSMRS) website at: <http://schoolmeals.nal.usda.gov/Safety/fnssafety.html> or is available for purchase from the National Food Service Management Institute (NFSMI) at: [www.nfsmi.org](http://www.nfsmi.org) or (800) 321-3054.

### **Serving it Safe Poster**

This colorful reference poster is a reprint of the one contained in the *Serving it Safe: A Manager's Tool Kit*.

This publication is available for purchase from the National Food Service Management Institute (NFSMI) Publication number FCS-296. For more information visit their website at: [www.nfsmi.org](http://www.nfsmi.org) or call (800) 321-3054.

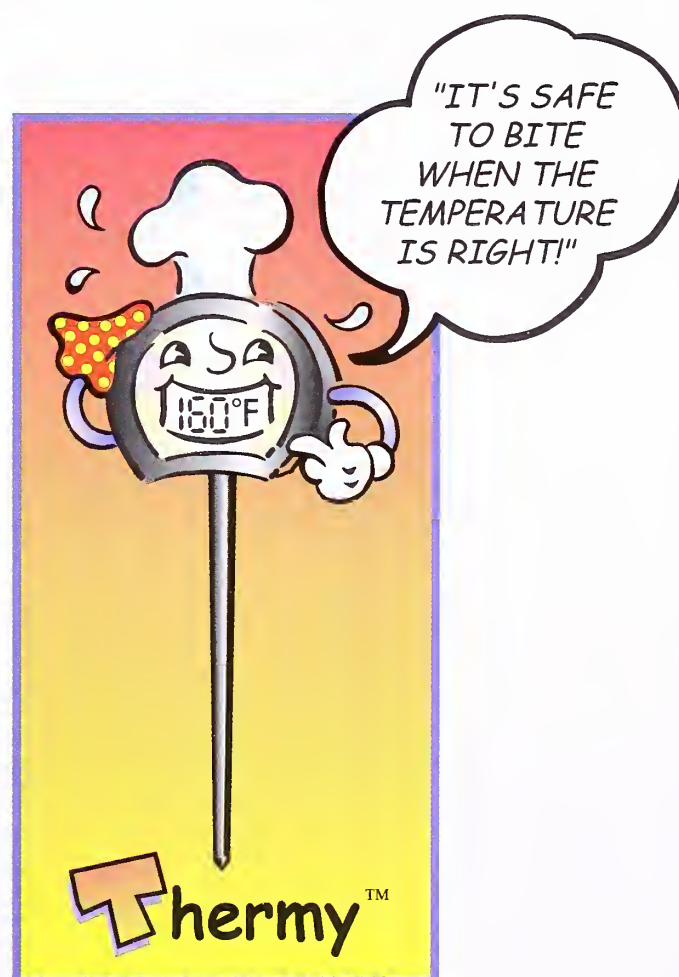
### **Thermy™**

Thermy™ is the mascot of a national consumer education campaign designed to promote the use of food thermometers. Thermy™ was developed by the Food Safety and Inspection Service (FSIS), U.S. Department of Agriculture (USDA).

For more information about Thermy™ visit their website at: [www.fsis.usda.gov/thermy](http://www.fsis.usda.gov/thermy) or contact the Food Safety Inspection Service (FSIS) Food Safety Education Staff at:

Phone: 1-800-535-4555

E-mail: [fsis.outreach@usda.gov](mailto:fsis.outreach@usda.gov)



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## **Granola Bars, 3-16**

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canned, 2-41

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frozen, 2-43

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**Tortillas, 3-15**  
**Tostada/Taco Shells, 3-15, 3-31**  
**Tree Nuts and Other Nuts,**  
     Almonds, 1-38  
     Brazil nuts, 1-38  
     Cashew nuts, 1-39  
     Filberts (Hazelnuts), 1-39  
     Hazelnuts (Filberts), 1-39  
     Macadamia nuts, 1-39  
     Peanut Granules, 1-39  
     Peanuts, 1-39  
     Pecans, 1-39  
     Pine nuts (Pinyons), 1-39  
     Pistachio nuts, 1-39  
     Soy nuts, 1-39  
     Walnuts  
         Black, 1-39  
         English, 1-39  
**Tripe, Beef, 1-21**  
**Tuna, canned, 1-58**  
**Turkey, Boneless, 1-62**  
**Turkey, cooked**  
     frozen, 1-63  
     canned, 1-63

**Turkey, fresh or frozen**  
 Backs, 1-60  
 Boneless, 1-62  
 Breast, 1-60  
 Burgers, 1-62  
 Drumsticks, 1-60  
 Giblets, 1-62  
     Gizzards, 1-62  
     Heart, 1-62  
     Liver, 1-62  
 Ground, 1-62  
 Halves, 1-60  
 Leg Quarters, 1-61  
 Mechanically or hand separated, C-6  
 Necks, 1-61  
 Parts, 1-60  
 Roast, 1-61  
 Thighs, 1-61  
 Whole, 1-59  
 Wings, 1-61  
**Turkey, Ground, 1-62**  
**Turkey, Halves, 1-60**  
**Turkey, mechanically or hand separated, C-6**  
**Turkey, parts**  
 Backs, 1-60  
 Breast, 1-60  
 Drumsticks, 1-60  
 Halves, 1-60  
 Leg Quarters, 1-61  
 Necks, 1-61  
 Thighs, 1-61  
 Wings, 1-61  
**Turkey, Whole, 1-59**  
**Turkey a la King, 1-64**  
**Turkey Backs, 1-60**  
**Turkey Barbecue, 1-64**  
**Turkey Breast, 1-60**  
**Turkey Burgers, 1-62**  
**Turkey Chili, 1-64**  
**Turkey Chili with beans, 1-64**  
**Turkey Drumsticks, 1-60**  
**Turkey Giblets**  
     Gizzards, 1-62  
     Hearts, 1-62  
     Livers, 1-62  
**Turkey Ham, 1-63**  
**Turkey Hash, 1-64**  
**Turkey Leg Quarters, 1-61**  
**Turkey necks, 1-61**  
**Turkey Products**  
     Creamed Turkey, 1-63  
     Turkey a la King, 1-64  
     Turkey Barbecue, 1-64  
     Turkey, Chili, 1-64  
     Turkey Chili with Beans, 1-64  
     Turkey Hash, 1-64  
     Turkey Salad, 1-64  
     Turkey with Gravy, 1-64  
     Turkey with Noodles or Dumplings, 1-64  
**Turkey Roast, 1-61**  
**Turkey Salad, 1-64**  
**Turkey Thighs, 1-61**

**Turkey Wings, 1-61**  
**Turkey with Gravy, 1-64**  
**Turkey with Noodles or Dumplings, 1-64**  
**Turnip Greens**  
     canned, 2-84  
     fresh, 2-84  
     frozen, 2-85  
**Turnips, fresh, 2-84**  
**Turtle (Black) Beans**  
     canned, 1-5, 2-13  
     dry, 1-5, 2-13

## U

**Ugli Fruit, fresh, 2-85**

## V

**Veal, fresh or frozen**  
     Cutlets, 1-64  
     Ground, 1-64  
     Heart, 1-65  
     Liver, 1-65  
     Roasts, 1-65  
     Steaks, 1-65  
     Stew meat, 1-65  
**Vegetables, dried for seasoning,**  
     Celery Flakes, 5-7  
     Chive Flakes, 5-7  
     Garlic, Minced, 5-8  
     Green Pepper Flakes, 5-8  
     Mixed Vegetable Flakes, 5-8  
     Onion, chopped, 5-8  
     Onion, flakes, 5-8  
     Parsley Flakes, 5-8  
**Vegetables, Mixed**  
     canned, 2-85  
     frozen, 2-85  
**Vegetable Soup, canned**  
     condensed, 2-73  
     ready-to-serve, 2-74  
**Vegetable Soup with Meat, canned**  
     condensed, 2-73  
     ready-to-serve, 2-74  
**Venison (Deer), Ground, 1-37**  
**Vienna Sausage, 1-37**

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**Wagon Wheels Pasta, 3-28**  
**Walnuts**  
     Black, 1-39  
     English, 1-39  
**Water Chestnuts, canned, 2-86**  
**Watercress, fresh, 2-86**  
**Watermelon, fresh, 2-86**  
**Wax Beans**  
     canned, 2-22  
     fresh, 2-21  
**Wheat, Cracked, 3-16**  
**Wheat, Rolled, 3-24**  
**Wheat Berries, 3-24**



Wheat Cereal, ready-to-eat, 3-24  
Wheat Germ, ready-to-eat, 3-24  
Whipping (Heavy) Cream, 5-3  
White Rice, 3-29  
Whole Milk, 4-2  
Whole or Stewed Tomatoes, canned, 2-82  
Wild Rice, 3-31  
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    fresh, 2-76  
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## **Y**

Yam Bean (Jicama), fresh, 2-43  
Yautia (Tannier), fresh, 2-87  
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    active dry, 5-9  
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Yellow Squash  
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    frozen, 2-76  
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    fresh, 1-66  
    frozen, 5-3  
Yucca (Cassava), fresh, 2-87

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Zwieback, 3-32

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